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# THE CANADIAN JOURNAL.

NEW SERIES.

No. LXVIII.—APRIL, 1869.

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## THE PRESIDENT'S ADDRESS.

—  
BY THE REV. WILLIAM DUNCKS, F.L.S.,  
PROFESSOR OF NATURAL HISTORY, UNIVERSITY COLLEGE, TORONTO.

*Read before the Canadian Institute, Jan. 16, 1869.*

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### GENTLEMEN OF THE CANADIAN INSTITUTE :

In assuming the chair, your calling me to which is, I assure you, regarded by me as a very high honour, though some circumstances in my own position made me at first reluctant to accept it, I must follow the usual custom in offering you a few considerations, suggested by the occasion. But in my choice of topics, I have been led in a somewhat unusual direction; and I can only hope that matters which seem to me to have a strong claim on our attention, may not prove unacceptable, or try your patience too severely.

I propose to bring under your notice some thoughts on the nature, utility, proper aims and modes of operation of such Societies as this, in which many of us take so lively an interest. In pursuing the subject, I may possibly offer opinions in which you may by no means all agree with me, but you will do me the justice to believe that they are not laid down dictatorially. They are thrown out for consideration and discussion. I pretend only to give you my own ideas as they have occurred to me, in comparing our condition and aims with those of other similar Societies, and endeavouring to form rational and practical

notions of what ought to be attempted and may be accomplished by such means as are in our power, as well as to estimate our actual state, our prospects, and our just claims upon the public.

Since man is a social being, it is natural that he should seek aid from his fellow-creatures in most of his objects, and should be disposed to combine with some of them in most of his plans and labours. Civilization increases mutual dependence, and draws closer the social bond, thus disposing us the more to that association, of which it greatly increases the power to secure advantages and facilities. Where population, wealth and high cultivation most abound, we are astonished at the multitude of distinct objects for which men have combined together in special societies. Every where they find this the means both for improving in and enjoying their pursuits, with most economy as well as the greatest success. Hence Religion, the most important of the pursuits of an intelligent and accountable being, extends and strengthens its influences by association; and this method, though felt by all to be natural and almost necessary, was not left to be adopted by our own choice, but was from the first provided as part of a divine system, fitted to meet human wants. At the other extreme we see mere amusements cultivated by means of societies, and even the convenient supply of ordinary wants creating a demand for clubs, whilst every needed form of charity, every section of party politics, we may almost say every distinct profession or pursuit in life, has its own society.

Is it then to be wondered at that the lovers of knowledge, which, next to religion, is the noblest and the most valuable of the pursuits of man, should also be disposed to enter into combinations, and should find in them both mutual encouragement and entertainment, and a most efficient means of extending scientific tastes, calling forth in this direction the energies of those who needed only a slight stimulus to enlist them in a glorious service, increasing the variety of rational and innocent pleasures, which are so much needed amidst the labours of active life; and pointing attention to those practical applications of science which are of daily utility, and often of national importance? It would be wasting words to defend the principle or prove the value of scientific societies, but it unfortunately happens that in a complicated social state there are so many interfering objects that it is a real difficulty to fix the proper position and establish the just claims of each.

Our Society takes the highest ground which can be occupied by such a body, in its aspiration to represent in some degree to the world the

learning and science of our portion of this Dominion. We desire to enroll amongst our members all those of our countrymen who engage in original research in any department of knowledge, and who may be supposed to have occasionally some chance of extending the bounds of some science, solving doubts, usefully discussing disputed questions, putting forth theories worthy of consideration, or in any other way leaving the impress of independent thought and truth-loving inquiry on any of the subjects in which man is interested. If any one has observed a new object, a new fact, or a hitherto unperceived relation between objects or facts; if any one can interpret what is thought obscure, or by sober argument show the fallacy of what he deems erroneous; if any one can devise a new application of science to art or human convenience; if any can throw the light of accurate and recondite learning, aided by acuteness and ingenuity, on the obscure records of past times, or by the suggestions of judgment and taste can elevate our enjoyment of beauty in nature and art, we desire all such to help us, that the record of our proceedings may be enriched, and our country may be honoured in the productions of her sons. But we are not permitted to make such as these our only objects. In some states of society, especially in older countries, this might well be; but in the condition in which we live, our design of promoting knowledge implies an attention not only to its accumulation, but to the increase of its influence, by drawing around us and associating with us the intelligent and cultivated whom the various business of life does not allow to become masters in any one branch of learning or science, but who well understand the value of such pursuits, and can appreciate and enjoy what comes under their notice in respect to them. It is our aim and business to associate together all the higher culture of the country, for improvement and enjoyment, derived from the best sources. We are not insensible to, nor do we as individuals fail to recognise, the claims of societies specially intended to spread more widely through the community means and incitements for improvement; but we choose for our sphere the higher departments and higher results of knowledge. We feel that ours is a distinct and an important object, and one worthy to be worked out with zeal and energy.

The young are too readily attracted by the gaities of life, which they allow to absorb too much of their time; or if they are happy in forming domestic ties, they are sometimes held by them so closely as not only wisely to resist the interference of follies, but even to give up the most

valuable pursuits, which would call them for a few hours from home. But do they sufficiently consider that if they have enjoyed the privilege of a liberal education, the keeping up and extending their knowledge is really necessary to make all they have already done available for their advantage in life, and that the pleasures derivable from the pursuit of knowledge and the cultivation of the mental powers, are incomparably higher and more durable than those afforded by the ordinary amusements of the world? If on the other hand they are engaging in the various pursuits of life requiring active intelligence, without having been able to secure the advantage of the higher education, I would ask them how they could dispose of the same amount of time more profitably than in connection with this Society? It is when our youth are lovers and seekers of knowledge that our country is sure to flourish, whilst to the individual the pursuit is rewarded by the constant and varied gratifications it affords—gratifications which are inexhaustible, and independent of the changes of life, consequently above all price in the world which for a short time we occupy.

It is especially to be desired for a Society of lovers and promoters of knowledge, that it should interest, attach and encourage those who are coming forward in life, to whom we look to fill the places of those who must soon withdraw from the scene; and in seeking means of extended influence, nothing deserves more consideration than what will be beneficial to them both by enriching their minds and calling forth their talents.

I now proceed to a few words respecting the extent of subjects which various Societies, having in view the same general purpose as ours, include in their plans. Our Society has chosen its name in reference to the French National Institute, which it is well known has a remarkably wide range of subjects, including nearly all the departments of knowledge, but yet, being divided into classes and sections, is really in its working a collection of separate societies for all the different branches. We have placed no limits to our subjects, and have assumed the expediency of the cultivators of all the different branches of knowledge, uniting their efforts in one body. If we are right in this, as we think it will appear that we are, it must be from circumstances in the condition of the country, which give such a plan the advantage on the whole, though many would prefer narrower associations, which undoubtedly have their own recommendations. The Royal Society, in its earlier stages, had no well-defined limits to its subjects, often intruding on what

properly belonged to the still older Society of Antiquaries, giving much space in its transactions to details of cases, monstrosities, *materia medica* and other matters strictly belonging to medical science, and including botany, zoology and mineralogy, as well as mathematical and physical science; but affording no precedent for combining with these literature or intellectual moral and social sciences. When we consider the low state of science in that age, the very limited number of its cultivators, and the difficulty of communication, we cannot wonder that some time elapsed before the Society displayed much of that power which has since made it a benefactor of mankind. Considering the kind of difficulties which have ever presented the greatest obstacles to our own useful progress, it is amusing, and not without its lessons of prudence, to read in the history of the Royal Society, in reference to the year 1673, that whereas a few years before there had been about 200 members, in this year the number was only 146; and of these, 79 were persons who had long neglected to pay their subscriptions. It is added: "This great number of defaulters gave much uneasiness to those who wished well to the Society; and the latter, besides making pressing application for the arrears, seriously contemplated an attempt to enforce payment by legal processes." This attempt, however, never went beyond talk. Greater care was exercised in the election of members; and as the Society gained strength and importance, defaulters were heard of no more. Those whose necessities or altered tastes make them wish to withdraw, can always do so in a decent and orderly manner, by signifying their intention at a proper time. There is only good ground for complaint when individuals wish to be regarded as members, and to enjoy the advantages, yet will not pay sums which, though small in themselves, are absolutely necessary to the working of the Society. I remember, when I resided in London, and had an opportunity of noticing such things, that in the public meeting-room of the Linnæan Society was suspended a board, on which were inscribed the names of all members above one year in arrear, and it was absolutely forbidden to issue the publications of the Society to any Fellow whose subscription for the current year was not paid up. You see, gentlemen, that we are not alone in having this difficulty to contend with, and that there are means for controlling it.

But to return to the question of subjects. Among the new Societies which have arisen in many parts of Great Britain, extension of subjects has been carried to the utmost; whilst in the metropolis there has been



an abundant crop of those which are devoted to a single limited branch. A name frequently adopted, and in such a case peculiarly appropriate, is "Literary and Philosophical Society," which at once points to the wide extent of the subjects open for discussion; and where the simpler form of "Philosophical Society" has been preferred, the members are allowed freely to roam through literature and learning, antiquities and arts, as well as mathematical and philosophical sciences. I myself can never forget many delightful evenings spent at the Literary and Philosophical Society of Liverpool, with Roscoe and Traill, Rathbone, Curry and the Yateses, and a host of others, eminent as physicians, lawyers, divines, or merchants, and well prepared to discuss matters of science, learning, literature, taste or social interest, in a manner at once agreeable and improving. Nor less do I recur with the truest enjoyment to evenings spent at the Yorkshire Philosophical Society, where Mr. Vernon Harcourt, Professor Phillips, Mr. Allis, the comparative anatomist, my learned colleagues in the college with which I was then connected, Mr. Wellbeloved, who has thrown such light on the antiquities of York, and Mr. Kenrick, the acute and refined scholar and critic, with other able men, gave a never-flagging interest to the Society's meetings. On the other hand, I can testify from my own experience, that a Society confining itself to a particular branch, which all its members are supposed to be more or less cultivating, does by no means secure the uniform interest of its meetings, and may frequently be a direct cause of their being dull and unattractive.

If we try to reason on the subject, it will be evident that the Society whose plan is most comprehensive is most likely to afford something peculiarly interesting occasionally to every intelligent person, and to diffuse a taste for that varied culture which is at once ornamental and useful in a community, whilst a common organization saves the expense of many separate establishments. A common publication brings before the world what is judged most important in all the departments; and what is wanted in the way of special studies in any one science, is easily supplied by the votaries of that science holding additional special meetings as often as they deem useful, like the Sections of the French Institute, and availing themselves freely of the rooms and books of the general Society; whilst, if they find it necessary for purposes of their own, they can provide themselves with funds by a small additional subscription from the members of the particular section. The working of our Medical section shows the practicability and the convenience of

this plan; there is a good opening already for several others, and it might have been better if this method had not been departed from in any case of the kind. Where a large and wealthy population, including many cultivators of almost every imaginary variety of human knowledge, is collected together within a comparatively small space, there is inducement to the formation of numerous distinct Societies, though even then the advantages are by no means unmixed; but in a new country, with a scattered and not on the average a very wealthy population, all that can be said of the importance of the higher culture, and the general benefit arising from its diffusion, favors comprehensive plans as alone likely to be successful, as alone having even a chance of any wide support, or of exerting any extended beneficial influence. The cases of private clubs, for particular studies and pursuits, literary or scientific, are no more touched by these remarks, than if their objects were musical or merely social; but the formation of formal societies for the cultivation of distinct branches of science or literature, cannot be otherwise than an act of hostility against a more comprehensive association, which is at the same time seeking and prepared to welcome the very communications which are thus turned into a new channel. The question is, which plan is on the whole best? If our community is prepared to support various distinct scientific bodies, to enable them to publish their papers and carry out their separate plans, they have a right to try experiments. I tell them plainly they will not meet with the support they seek; and whatever success they do obtain will be so much strength drawn away from the Canadian Institute, a Society which aims at a wider usefulness, and has claims on the patronage of every man in the country who loves and values knowledge and culture—which offers to them all privileges, such as no limited body can pretend to afford.

I come now to a question as to the extent of country over which such a Society as ours may advantageously extend its operations. The Canadian Institute was designed by its founders to embrace the whole province of Canada as then understood, enrolling among its members the scattered lovers of knowledge, and collecting their communications as materials for its journal. It has at present members in various parts of Ontario and Quebec, none of whom it would willingly part from; but the new condition of public affairs forces us to re-consider our condition, and to form some judgment as to what course will be of most public utility, and will best advance our objects. We might possibly aspire to extend our operations over the whole Dominion, or be ready

at least to amalgamate with some new Society which might undertake to connect the science and learning of the whole Dominion in some common bond ; but to this there exist such serious obstacles, that to hope to overcome them requires more enthusiasm than many of us possess, and after all the field would be too wide for a single moderate sized publication to do justice to all its parts, and the difficulty of agreeing about a common centre of management, the distance of the parts and (for the present) the difficulty of communication, would interfere with the success of the experiment. Giving up as hopeless, and attended with certain serious evils this wider plan, it seems evident enough that we must not pretend to provide for any wants of the Province of Quebec, but must withdraw within the bounds of Ontario. Is it possible for us to extend our useful influences within these bounds, or does prudence counsel taking the opportunity of confining ourselves to providing for the wants of this city, and its immediate neighbourhood? It seems to me that we have no right to confine ourselves within narrower limits than the Province of Ontario. So far as we are a publishing Society, the whole Province has an interest in knowing what we do, and studious men in all parts of it, have a claim on our pages, as being their proper access to the public for communications of a certain class, whilst it is obviously our object to make the journal express the highest thought and most original and important inquiry, carried on within our bounds, so far as their results can take a form suitable to our plans. The Province of Quebec has its own scientific journal, with which we cannot interfere ; but we should be sorry to see our own immediate citizens driven beyond our bounds to find means of making known their discoveries and opinions, and whilst the Province of Ontario ought to furnish abundance and variety of material—it may be safely affirmed that for a considerable time to come, the multiplication of periodical publications, devoted to science and the more abstruse forms of literature, could only occasion pecuniary loss and the disappointment of all concerned. It may still be said that we have never obtained a large number of country members, and that it is natural that towns which are now rapidly rising in magnitude and importance, should provide intellectual resources for themselves, and have societies of their own. I answer it is desirable that they should, and they have our hearty wishes for their success ; but since in union is strength, and since the attempt at separate publication could at present only result in evil, why should not all local literary and scientific societies, whether

their subjects be more less extended, make themselves parts of our Society, contributing for each member the lowest admissible price for the journal which all should receive, and disposing of their remaining funds according to their own plans; holding their own meetings, and sending such contributions, as they judge proper, to the editing committee of the *Canadian Journal*. There would then be no assumption of superiority in the central and older body. All would pursue the common object according to their own views of what is most useful or agreeable, and yet we should all be one body, and the journal would be a centre of interest to us all, as a common property which we should all desire to enrich. Ottawa, Kingston, Hamilton and London, either have already, or might at once have, societies which would be better in connection with ours, and other places are nearly if not quite ready to do something. Meantime our principle is that members out of Toronto only pay for the journal, which we think deserves the patronage of all our intelligent citizens; yet they enjoy all other privileges of membership whenever they can avail themselves of them, so that it is discrediting both their understandings and their patriotism, to say that they have no interest in joining us.

Allow me, in conclusion, to say a word or two on our own wants, and on possible improvements in our plans, in the immediate sphere of our action, independently of what I must always regard as one of our most important objects, the Society's Journal. We can benefit and gratify our members through our library, our reading room, our museum and our meetings. For our efficient working in all these ways, we require a convenient and suitable building in a very accessible situation. This has long been an object of desire to us, and attempts have been made more than once, but the difficulties have been found too great—nevertheless if we wish to keep up our influence and fulfil our proper mission, we must I am persuaded determine to succeed, and by energy and spirit carry through the work.

Our library which contains much that is valuable—several articles of great and remarkable value—is not to be considered safe, lying as it does in an ordinary frame building. Our museum such as it is, cannot be displayed, and of course cannot be increased. Our meeting-room is small for our ordinary meetings, which have not recently been very numerously attended, and if we did as we ought to do, would be utterly useless. We now possess a good site, central and large enough for any reasonable purpose, but we want premises which will enable us to

develope our plans, and we ought to work diligently towards securing them.

One of our practical wants is that our papers should give rise to more conversation, making our meetings more social, and that there should be more time and opportunity for general conversation. I am inclined also to think, that if a certain number of our meetings every season, were devoted to lectures by some of the members, on suitable subjects, literary or scientific, at which ladies might be invited to attend, we should thus make the character and objects of our Society better known; increase its useful influence, and contribute to the pleasure of our members. Our financial condition forbids any important immediate increase to our Library, or additional supply of our Reading Room, though it is not so bad as to prevent something being done which I hope will be immediately considered; but, to speak the plain truth, if those who call themselves our members, and who all ought to be with us, would only regularly pay their annual contributions, which if done regularly would be to them but a small matter, we should be well able to do many things which we now lament our inability to accomplish; and of course the more we did in this way, the greater would be the inducements to others to join us, as well as our own benefit from our association. As to our Museum, it is at present useless, and little else than a name. Personally, I am strongly impressed with the folly and wastefulness of multiplying museums in the same neighbourhood. The University of Toronto, which is a national institution, and opens all its advantages as freely as possible to the whole public, aims at a good general museum, both as a means of teaching the natural sciences in University College, and as a place for consultation of specimens and improving study to all lovers of natural history, as well as a pleasing recreation to all visitors. It is a matter of public and national interest to improve this Museum, which, if it had any funds for its increase, would speedily become highly valuable. For us to attempt a duplicate general Museum, would be absurd; and the few interesting productions of distant countries possessed by us, are really out of place with us, and wasted upon us. But there is something in this way which we might do, which would be both pleasing and useful. We might have a Natural History collection of the productions of our own Province. We might solicit our sporting friends to send us specimens of the mammalia and birds of our region. The fishes of our lakes and streams would not be less attractive, and a good deal more

novel. Our entomological friends would, I am sure, be proud to furnish us with our native insects. Our Curator would be happy in calling forth all the zeal he could, in bringing together our molluscous animals; and a botanical section might doubtless be organized, to make rural excursions to procure and preserve our native plants, from the noble forest tree to the minutest moss, lichen or fungus. Such a collection would be a constant source of instruction amongst ourselves, and would be most interesting and attractive to all strangers. It would be without a rival, and could never be regarded as what is not wanted, or as a pretension to what cannot be well accomplished. The sooner we can enter on this field the better, and I trust we shall enlist some good and active labourers amongst our members.

Gentlemen, I have gone beyond what I intended; I will only further say, that as in my capacity of a private member, I have, from my interest in your objects, and my real enjoyment of your meetings, been as constant an attendant as almost any of you, so, as far as health and strength will permit, I hope to be generally with you, anxious to participate in your proceedings as well as to render you any little service in my power. But except in my own loss, I can feel no uneasiness in being occasionally absent, being so well supported by the Vice-Presidents you have selected. If any effort of mine can assist our progress towards the position which we ought to occupy, you may rely on its being cheerfully made; and I entreat you all to give us, as often as you can, the advantage of your presence with us, and by the active part you take in our proceedings, as well as by any communication you can offer, whether or not of a kind that you would like to submit to the public in our journal, to show that you value the Society, and wish to develop all its power of usefulness.

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## NOTES ON LATIN INSCRIPTIONS FOUND IN BRITAIN.

## PART XIII.

BY THE REV. JOHN MCCAUL, LL.D.,  
PRESIDENT OF UNIVERSITY COLLEGE, TORONTO, ETC.

76. "The Roman Wall, a description of the natural barrier of the North of England, by the Rev. J. Collingwood Bruce, LL.D., F.S.A., \*3rd Ed. 1867," is a very handsome quarto volume, profusely illustrated by excellent lithographs and woodcuts. In it "the author has endeavoured to bring the work up to the present state of our knowledge upon the subject;" so that "this edition appears before the public as almost a new work." The Inscriptions that have been found along the line or in the neighbourhood of the Wall "are laid before the reader in an extensive series of engravings." \* \* \* "In a few instances the letter-press and the woodcut illustrations slightly differ. Where an inscription is nearly obliterated, independent on-lookers will come to † different conclusions as to particular characters. The writer has expressed in type such letters as he himself saw, leaving the engraving to represent the views of the skilful and conscientious artist, Mr. Mossman, who prepared most of the original sketches." Not only are the illustrations considerably improved, but, also a large addition has been made to the number of the inscriptions that were figured in the second edition. Many of these, indeed, had previously appeared in the *Archæologia Eliana*, Horsley's *Britannia Romana*, &c., but they are here, generally, more distinctly or correctly given in superior representations, whilst others have never before been published. Of the renderings of inscriptions that have appeared in the second edition, or in the

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‡ Published by subscription, at three guineas, by Andrew Reid, Newcastle-on-Tyne. The price will probably place the edition beyond the reach of many, but the book is well worthy of a place in every public library.

† This difference is often very perplexing to those investigators who, like myself, have seen only copies. Sometimes readings are given on the authority of personal inspection—and unquestionably in good faith—of which it may be said, in the words of Kirchoff, relative to a Greek Epigraphist—"Apparet—nonnulla quidem videri in lapide, quæ fugere testes ceteros, vidisse autem nulla quæ scripta estare nemo sanus sibi persuadeat."

*Archæologia Eliana*, some are corrected and others are extended, and in some cases readings are given for the first time.

In a considerable number of these, Dr. Bruce has been anticipated in the pages of this *Journal*, and in "Britanno-Roman Inscriptions," *e. gr.* (in addition to those specified by him) in \**Curatori*, in p. 64, in the partial restoration of the fragmentary inscription in p. 65, in † *Imaginifer* in p. 68, in the readings ‡ *Parthicis Medicis*, and *Coh. I.*

\* A much improved woodcut is given in the third edition, of the stone bearing the inscription in which this word occurs. It now appears to be—

D M  
AVR ?? ENO  
CVRATORI ALAE  
IIASTVRSTIPXV  
ÆIO ? ENVSDEC  
OSPPLE ? COS

Dr. Bruce expands it—

*Dis Manibus Aventino (?) curatori alae I' Asturum stipendiorum XV, Æliomenus (?) Decurio.* To the divine manes -to Aventinus the curator of the second ala of Astures, having served fifteen years, Æliomenus (?) the decurion [erected this monument].

In the second line Dr. Bruce has, inadvertently, omitted *Aurelio*, which seems to be clear. The reading of the other letters in the line is very uncertain. *Antheno* seems more probable than *Aventino*. In the fifth line I is within the O, and the letters in ligature after it seem to be ME, so that *Æliomenus* (or *Æli. Iomenus*?) is not improbable. The appearance of COS at the end of the last line suggested to me the idea that the consular year was stated, but I have not been able to determine the names or name. OS, followed by PR (for the second P may be a relic of R), led me to think of *Sosius Priscus*, but this conjecture is not consistent with the remains of the other letters.

† If I had seen the woodcut in the third edition, representing the altar, in which IMAΓ=Imaginifer is found, I also should have read COH·II·DELMA = *Cohortis II Delmatarum*, but the woodcut in the second edition misled me, for in it the final syllables of the name of the cohort seem plainly to be ORVM. Hence I chose of the two cohorts known to have been at *Magna*, where the stone was found, *IIaniorum* in preference to *Delmatarum*. As I have adverted to the *Cohors IIaniorum*, known only from British inscriptions, I may mention that I have but little doubt that it was named in Hadrian's Diploma of 124. The letters are I. M·SALIN· I would supply HA as the two missing letters. On the meaning of SALIN I can offer no feasible conjecture, but it has occurred to me that it may possibly be a mis-reading of SAGIT., *i. e.*, *Sagittariorum*.

‡ In the third edition there is an excellent woodcut, representing this fragmentary inscription, by which my readings (*Canadian Journal*, 1865) seem to be confirmed—*scil. Antonino et ——— (Par)thicis Medicis, and I·Ratorum*. I had remarked, "It is plain from the epithets, *Parthicis, Medicis*, that the empe-



*Rætorum* in p. 237, in *L = Lingonum*, pp. 348, 349, and in others which it is unnecessary to mention. Dr. Bruce would, doubtless, have stated these, as he has specified other similar cases in the same publications; but the popular character of his work prevented him from specially noticing in every instance points that are of interest chiefly, if not solely, to scholars. This adaptation to the general reader is, indeed, a distinctive and very attractive feature of the book. On its claims in this respect to the attention of all who take an interest in the Roman period of British history, it would be both easy and agreeable to enlarge, but, as such a treatment of the subject would be inconsistent with my purpose in this series of articles, and unsuited to the wants of those for whom my Notes are intended, I shall limit my present remarks to the critical examination of those inscriptions which appear, as presented in this new edition, to be susceptible of emendation.

77. In some cases Dr. Bruce retains his former readings, although they seem to require correction.

rors named were *Marcus Aurelius Antoninus* and *Verus*, and that the date is consequently A.D. 165-169." Dr. Bruce observes, "The inscription belongs to a period between A.D. 162, when the epithets, *Medicis*, *Parthicis*, were assumed by the emperors, and A.D. 169, when Verus died." There can be no doubt that his determination of the period is incorrect. The only question regarding the date as fixed by me is whether 166 is not preferable to 165. The latter is justified by Orelli's n. 859. The remarks on this subject in Merivale's "History of the Romans under the Empire," vii. p. 573, are not accurate. He says, "On the conclusion of peace in 166, he (Verus) hastened back to Rome, where Aurelius received him with open arms, and threw a veil over his want of personal prowess by conducting a joint triumph with him. The two emperors assumed the titles of Parthicus, Armeniacus and Medicus, though Aurelius refused, at first, a share in honours for which he had not personally contended." To this is subjoined a note: "Of these and several triumphal designations, Medicus alone, it is said, never occurs in medals or inscriptions, to avoid perhaps a possible misinterpretation." As Mr. Merivale's account might produce an erroneous impression, it seems necessary to state the facts. In 163, the title *Armeniacus* was offered to both Verus and Antoninus. The former accepted it, and it appears on his coins of the year, but the latter declined it for a time. In 164, *Armeniacus* appears on the coins of both. In 165, the title *Parthicus* was offered to both. Verus accepted it, and it appears on his coins of the year, but Antoninus declined it for a time. In 166, they were both styled *Parthicus* and *Medicus*. On the coins of Antoninus we find only two of the titles, either *Arm.* and *Parth.* or *Parth.* and *Med.*, but in some of those of Verus the three titles. The statement, noticed by Mr. Merivale in the note, is contradicted by the existence of several examples of *Medicus* both on coins and stones.

(a) In p. 170, we have the following inscription on an altar :

FORTVNAE  
COHIBATAVOR  
CVIPRAEEST  
MELACCINIVS  
MARCELLVSPRÆ.

*Fortunæ Coh. I. Batavorum cui praeest Melaccinius Marcellus Prae [fectus].*  
To Fortune the 1st Cohort of Batavians, commanded by Melaccinius Marcellus the Prefect.

This expansion is the same as that given by Horsley, but as there is no authority for a *gens Melaccinia*, I think that the fourth line should have been read, *M. Flaccinius, i. e., Marcus Flaccinius*, as Dr. Hunter read it. Even if the second letter be E (not F), as Horsley thought, I should prefer *M. Elaccinius, i. e., Marcus Elaccinius*. *Elaccinius* may be regarded as another form of *Allecinius*. In p. 314, we have another misstatement of the *gens* in a different form. There *C. Cap. Charitino* are expanded as in the second edition, *Caio Capione Charitino*, instead of *Caio Capio Charitino*.

(b) In p. 243, we have the following epitaph :

D M  
AVRFFAIAE  
DSALONAS  
AVRMARCVS  
JOBSEQCON  
IVGISANCTIS  
SIMAEQVAEVI  
XITANNISXXXIII'  
SINEVLLAMACVLA

“*Diis Manibus Aureliae Faiae domo Salonas Aurelius Marcus Obsequio conjugis sanctissimæ quæ vixit annis xxxiii sine ulla macula.* To the divine manes of Aurelia Faia, a native of Salona, Aurelius Marcus, a centurion, out of affection for his most holy wife, who lived thirty-three years without any blemish, [erected this].”

I cannot accept the reading, *obseq(ui) conjug(is)*, given by Dr. Bruce, as correct. The letters on the stone are *obseq conjugi*, and should, I think, have been expanded *obsequens conjugi*.

(c) In p. 273, an altar is figured, that bears the following inscription :

DEOSANCTO  
SILVANOVE  
NATORES  
BANNES·S

Dr. Bruce expands and translates it as in the second edition :

“*Deo Sancto Silvano venatores Bannae sacraverunt.* To the holy God Silvanus the hunters of Banna have consecrated this altar.”

This reading does not satisfy me. There is the same objection on the ground of Latinity to Dr. Bruce's *Bannae* in the sense “of Banna,” as there is to his *miles Pannoniæ* as “soldier of Pannonia,” in p. 231, and *civis Pannoniæ* as “citizen of Pannonia, in p. 229. If *Bannae* be the correct reading, the translation should be “at Banna.” But I suspect that the word intended was *Banneses* for *Bannenses*, and that the *Venatores* were not mere sportsmen that hunted in that place or its neighbourhood, but that they belonged to the class of men that contended with wild beasts in amphitheatres, such as we know were in various parts of Roman Britain, *e. gr.*, at Chesters, at Housesteads, at Caerleon, &c. Thus we have in Henzen's n. 7209: *Coll. Venator. Deensium qui ministerio arenario fungunt*, where *Deensium* is the adjective formed from *Dea*, for the name of the place was *Dea Augusta*.

(d) In p. 309, we have the copy of an inscription to which I have always attached much importance, since I first saw it in the second edition :

“DIFFVSI  
PROVINC  
BRITANNIAAD  
VTRVMQVEO  
EXERCITVS

“*Diffusis provinciis [in] Britannia ad utrumque oceanum exercitus [fecit].* On the extension of the provinces in Britain to either sea, the army erected this. As the inscription shown above is incomplete, the reading of it is in part necessarily conjectural; that which is here adopted was proposed by Brand.”

It seems plain to me that this reading must be rejected, not merely on account of objection to the Latinity, but also because there were no provinces to be extended to the two oceans, *viz.*, those to the east and west of the island. If we compare with this inscription the *titulus* given by Tacitus, *Annals*, ii. 22—*debellatis inter Rhenum Albinque nationibus exercitum Tiberii Cæsaris ea monumenta Marti et Jovi et Augusto sacravisse*—we shall, I think, be inclined to regard this stone as erected by the army with a similar object as marking the completion of some important enterprise. It may be reasonably inferred that the word with which *diffusis* agrees (with, probably, the names of the deities

to whom the dedication was made), was on the \* upper portion of the stone that has been lost. The question is, what that word can have been. *Hostibus* or *gentibus* would be an obvious suggestion, but I am not aware of any example of *diffusis* used with either of these, and, besides, neither seems to accord with *ad utrumque oceanum*. I am disposed to supply either *copiis* or *præsiidiis* (which may be supported by Virgil, *Æneid*, xi. 465), or *castris*, *stationibus* or *prætenturis*, and to regard this stone as a memorial of the completion of the occupation of the isthmus between Solway Firth and the mouth of the Tyne by a chain of military posts. Jarrow church, where the stone was found, was at a short distance from Wallsend, *Segedunum*, but on the opposite side of the Tyne. The stone seems to have been taken across the river. In accordance with these views, I would read the inscription, (*castris* or *præsiidiis*) *diffusis* (or *diffus. in*) *provincia Britannia ad utrumque oceanum exercitus, i. e.*, on the completion of military posts in the province of Britain scattered along the line from one ocean to the other, the army of——. After *exercitus* was, I think, the name either of the emperor or of the general in command. See Tacitus, *Annals*, ii. 22. On the stone there is the fragment of a letter that may have been N or M, and under ERCI of EXERCITVS are traces of letters resembling IIV.

(e) On the same page, we have an improved cut of a stone also found at Jarrow :

OMNIVM·FIL  
HADR  
ANICESCHAT  
VATIS INCR  
II P ININC  
II

The letters CESC in the third line, V and INC in the fourth line, and the first IN in the fifth line, are uncertain. Dr. Bruce remarks :

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\* There may have been there, for any thing that we know to the contrary, some such terms as *MVRO PERFECTO PRAESIDIISQVE*; but this is, of course, mere conjecture. I at one time hoped that the other inscription found in Jarrow church, when more fully deciphered, would throw light on the completion of the Wall; for, so far as I could trace the characters, it seemed to record something done by Commodus, Severus or Caracalla to something that bore the name of Hadrian. I even ventured to speculate that the word in that inscription after *Hadriani* might turn out to be *cespitiium*, but, from the appearance of the inscription in Dr. Bruce's improved woodcut, that speculation has not been realized.

“All that can be said of this inscription (which is still more imperfect) is, that it seems to have been erected in honour of all the adopted sons of Hadrian, of whom Antoninus Pius, his successor, was one.”

The expansion that has been adopted by Dr. Bruce is, of course, *omnium filiorum Hadriani*. The obvious question is, who were all these sons of Hadrian? He had none of his own, so that reference must be made to his sons by adoption, one of whom and the best known was *Antoninus Pius*. But who were the others? We know *L. Ælius Verus*, but there our knowledge ends. It is plain that *omnes* cannot have been applied to two, and the only way to get over the difficulty is to supplement the adoption of *Verus* and *Antoninus* by the addition of *M. Annius Verus* and *Lucius Verus*, who were chosen by Hadrian for adoption by *Antoninus*. Again, another question arises—how does it happen that Hadrian has none of the usual imperial titles? Even if the letters after ANI be CÆS, they cannot be regarded as standing for CAES = *Cæsaris*, for this title would not have been placed in such a position. It seems probable to me that FIL is a misreading for FEL, the first three letters of FELICISSIMI. The name and titles of the emperor were on the upper part of the stone, which has been lost, and that emperor was, not improbably, *Commodus*, *Severus*, or *Caracalla*.

(f) In p. 401, we have a copy of an inscription in Iambics, found at Carvoran. The last three verses are—

“*Ita intellexit numine inductus tuo,*  
*Marcus Cæcilius Donatianus militans*  
*Tribunus in Præfecto dono Principis.*”

Dr. Bruce translates it thus :

“Thus hath understood, overspread by thy protecting influence, Marcus Cæcilius Donatinus, a warfaring tribune acting as prefect by favour of the emperor.”

The translation is the same as that in the second edition, with the exception of the words, “acting as prefect by favour,” which are substituted, as stated by Dr. Bruce in a note, in accordance with the interpretation proposed by me in *Brit. Rom. Inscip.*, p. 298. *Numine inductus tuo* does not mean “overspread by thy protecting influence,” but “led to this conclusion,” “persuaded,” “by thy divine influence.” Again, *militans* does not mean “warfaring,” but simply “serving,” so that the meaning of *militans Tribunus in Præfecto* may be more clearly expressed by “serving not only as præfect, but also as tribune.” *Donatianus* (not *Donatinus*), whilst he was *præfectus equitum*, was allowed by the emperor also to hold the rank of *tribunus militum*, as

Henzen says—*re præfectus honore tribunus*. We have an example of this in the case of *M. Stlaccius Coranus* (Orelli, n. 5017), who was *Trib. Mil. Leg. II. Aug. Præf. Equitum Alæ Hispanorum in Britannia*. We may infer from the inscription of Donatianus, that there was an *ala* at *Magna* whose name is unknown, or else that the legion in which he was tribune was there, and we have a memorial of the presence in that place of at least one legion.

(g) In p. 407, an altar, found at Chesterholm, is figured. It bears the inscription :

DEONO  
NEPTV  
SARABO  
SINO

Dr. Bruce remarks :

“It may be read DEO NEPTVNO SARABO SINO—to the God Neptune, of the bay of Sarabus. The second line not being long enough to hold the whole of Neptune’s name, the last syllable of it has been added to the first.”

Dr. Bruce has omitted to mention where this “bay of Sarabus” is to be found, and to adduce an example of the *metaplasmus* of *sinus* from the 4th to the 2nd declension.

78. In some cases, Dr. Bruce seems to me to have made a wrong choice between two readings. In the inscription on an altar figured in p. 280, the names of two persons are found, *viz.*, *Alb. Severus* and *Vic. Sevro*. In *Brit. Rom. Inscrip.*, p. 13, I suggested, instead of *Albus Severus*, and *Victore Severo*, as given in the second edition of the *Roman Wall*, *Albius Severus* and *Victorio Severo*, but Dr. Bruce retains his expansions. My ground for the changes is, that where we have abbreviations of names before *cognomina*, those ending in *ius* should be preferred, unless we have authority in each instance for other forms. Sometimes either may be used, as in *nomina* ending in *nus*, *e. gr.*, *Sallienus* or *Sallienius*, *Pupienus* or *Pupienius*, *Alfenus* or *Alfenius*.

In the inscription given in p. 220, Dr. Bruce retains his *miles annos XVI*, although Mr. Hedley’s *militavit annos XVI* is the correct expansion, and similarly *civis Pannoniæ* instead of Mr. Hedley’s *civis Pannonicus*. In those inscriptions that have now for the first time appeared in the pages of “*The Roman Wall*,” there appear to be similar errors in choice.

(a) In p. 136, we have a fragmentary epitaph, of which one of the lines is ISNORICIANXXX. In *Brit. Rom. Inscrip.*, I expressed the

opinion that the words before *annorum XXX* were *civis Norici*, i. e., a citizen of Noricum. Dr. Bruce, however, retains Horsley's *Noricus* as the name of the person. In support of my view, I may refer to *cives Norica*, in n. 825, "Rom. Inschrift. in Dacien," by Aekner & Müller.

(b) In p. 236, Dr. Bruce remarks, relative to the date of an inscription figured in p. 235 :

"Severus Alexander became sole emperor in 222, and was assassinated in 235."

In Brit. Rom. Inscript., p. 156, I had fixed the year with, I think, certainty, to 225, the date of the consulship of *Fuscus II.* and *Dexter.*

(c) In p. 331, two of Horsley's inscriptions are joined, so as to form one, in the belief that the stone had been broken into two pieces.

"DEOMATVNO  
PRO·SALVTE·  
—————  
BONOGENERIS  
HVMANIIMPE  
RANTE·C\*\*\*\*  
\*\*\*\*\*  
AVG·PR·PR·POSVIT  
AC·DEDICAVIT  
C·A·CÆCILIO?A???

*Deo Matuno pro salute* [Antonini Cæsaris nati]? *bono generis humani imperante C\*\*\*\** [leg.] *Aug. Pr. Pr. posuit ac dedicavit C. A. Cæcilius.* To the God Matunus, for the safety of Antoninus Cæsar, born for the good of the race of mankind; by order of ———, imperial legate and proprætor. It was erected and dedicated by Caius Aulus Cæcilius (?)."

Dr. Bruce remarks :

"The name of the emperor for whose welfare the dedication was made, and to whom is applied the proud but not unprecedented title of "born for the benefit of mankind," is lost, in consequence of the fracture of the stone. It is here supplied, in accordance with a suggestion made to the writer by his friend, Mr. Roach Smith. There can be little doubt that one of the Antonines—probably Caracalla—was intended. The god Matunus is not elsewhere mentioned."

On the probability of the two stones being portions of one, and of the inscription being thus broken between them and a missing portion, I shall offer no remark, as I have not seen either of those that exist. My impression, however, is in favor of Horsley's view, that the two are not fragments of one stone; and, even if they are, I cannot accept the proposed restoration, for there is no authority for the bare form, *Antonini Cæsaris*; and I think that the emperor, whose name is lost, was not one of the Antonines, as I have never met with an example

of *natus pro bono reipublicæ* or *generis humani* before the time of Constantine. With regard to the inscription on the lower stone, I adhere to the opinions stated in *Brit. Rom. Inscript.*, p. 142, that “*imperante* agreed with the lost name of the emperor, forming an ablative absolute. The name of the *Leg. Aug. Pr. Pr.*, in the third and fourth lines, was in the nominative case, being the subject of *posuit*. C. A., in the last line, stand for *c(uram) a(gente)*, or *c(urante) A(cilio)*.” I must, however, withdraw my closing remark—“*Acil* are the first two syllables of *Acilio*, which was followed by the *cognomen* now obliterated,” for it now appears that the letters on the stone are *Cæcil*, not *Acil*, as given by Horsley. Objections may reasonably be made, not merely to the order of the terms according to Dr. Bruce’s interpretation, but also to the \*two *prænomina* of the person named in the last line. As to the usual order, see Orelli, nn. 3275, 3329.

(d) In *Brit. Rom. Inscript.*, p. 154, § 70 is devoted to the consideration of an altar, which Dr. Bruce expanded and translated thus :

“DIISDEABVSQVESE-  
CVNDVMINTERPRE-  
TATIONEMORACV-  
LICLARIAPOLLINIS  
COH[ORS] PRIMATVNGRORVM.

“The first cohort of the Tungrians (dedicated this structure) to the Gods and the Goddesses, according to the direction of the oracle of the illustrious Apollo.”

My remarks are:—“I have no doubt that I, in CLARI, stands, as is common, for II; and that CLARII is the well-known epithet which Apollo derived from *Clarus* (near Colophon in Ionia), where he had a celebrated temple and oracle. It is scarcely necessary to cite illustra-

\* There are several examples of two *prænomina* (see Marini, *Atti Arval.* i, p. 234) but they are not common any where, and are extremely rare in Britain. In the inscription given in p. 332, we have M. G. SECVNDINVS, which, if the reading be correct, can scarcely be read otherwise than *Marcus Gaius*. The single letter G, however, may stand for *Gaius*, meaning of the *gens Gaia*. Thus Dr. Bruce reads S. VAPOLLINARIS, in p. 361, as *Sextus Valerius Apollinaris*, regarding BR in smaller letters above the V as standing for *Brocavi*. I doubt, however, whether it is not better to read VABR as standing for *Vabrius*, i. e., *Sextus Vabrius Apollinaris*. See p. 205. As I have adverted to *prænomina*, I may mention that the centurion named in the inscription, given in p. 111, was, probably, not *Marcus*, but *Manius Liburnius Fronto*, although the character on the stone differs from that ordinarily used for *Manius* by having  $\Lambda$ , not V, as the addition to the M.



tions from ancient authors. Amongst the most obvious are, Virgil, *Æn.*, iii, 360, "Que tripodas, *Clarii* lauros, qui sidera sentis," and Tacitus, *Ann.* ii, 54, "Relegit Asiam appellitque Colophona, ut *Clarii* *Apollinis* oraculo uteretur." Dr. Bruce, in the third edition, retains the reading *clari* and the translation "illustrious," observing in a note on the word:—"Dr. McCaul prefers reading '*Clarii*,' from the well known epithet which Apollo derived from Clarus in Ionia." It is, I think, but reasonable, under the circumstances, to ask Dr. Bruce for authority to prove the application of the epithet *clarus*—"illustrious" to Apollo, especially in connexion with one of his oracles.

79. I now proceed to consider some other inscriptions that have appeared in "The Roman Wall," for the first time in the 3d edition.

(a) In p. 211, an altar is figured, which bears the following inscription:—

<sup>i</sup>  
 FORTVNAE  
 P            R  
 C. IVL RALTICVS LEḠ VI VIC

Dr. Bruce expands and translates it thus :

"*Fortunæ populi Romani C. Jul. Ralticus [C] leg. VI. Vic.* To the Fortune of the Roman people Caius Julius Ralticus, a centurion of the sixth legion the victorious."

This expansion is the same as that given by Horsley. I am not satisfied with it. I prefer *Fortunæ Primiogeniæ*, or, possibly, *Prænestinæ*. I am inclined to think that the name was not *Ralticus*, but *Rælticus*. *i. e.*, that the third letter was E, not L. There is no ground for supplying *centurio*. Where the rank is not stated, it may be assumed that *miles* is omitted, of which examples are not rare.

(b) In p. 234, a stone is figured that bears the following inscription :

ID·MSALVTE  
 PERVICAE FILIAE.

Dr. Bruce expands and translates it thus:—

"*Dīs Manibus pro salute Pervicæ filæ.* To the Divine Manes for the welfare of Pervica, our daughter."

To me it seems more probable that the letters before *salute* were MD.M, *i. e.*, *Magnæ Deorum Matri*, or, possibly, ID.M, *i. e.*, *Idææ Matri*. See *Canadian Journal*, x. p. 97. *Pervica* seems to have been sick, and this stone was set up for the recovery of her health.

(c) In page 245, an altar is figured, that bears the following inscription :—

FORTVN  
AVDAC RO  
MANVSO  
LEGVI·XX  
AVG

Dr. Bruce expands and translates it thus:

“*Fortunæ Audactus Romanus* ∅ Leg. VI. XX. [II] AVG. [Dedicated] to Fortune [by] Audactus Romanus, a centurion of the sixth, twentieth and second legions.”

He also offers the following remarks :

“An altar, which belongs to this station (*Magna*), has been dedicated to Fortune by Audactus (?) Romanus, who seems to have held, no doubt successively, the office of centurion in all the British legions—the sixth, the twentieth and the second, styled the August.”

This expansion is the same as that given by Horsley, except the substitution of *Audactus* for *Audacius*, which Dr. Bruce declined accepting, probably because there is no example of a *gens Audacia*; and yet his *Audactus* is almost equally unprecedented, and has the additional defect of being a *cognomen*. On the erroneous opinion that the same person could not hold the office of centurion in different legions at the same time, it is sufficient to cite Henzen's n. 6779, where we learn that the offices of *primipilus* in one legion and *princeps* in another were held at the same time by one person. The words are, *ita ut in leg. X. primum pil. duceret eodem tempore princeps esset leg. VI.* My view, however, of this inscription is, that it marks the erection of the altar, not by a centurion, but by the legions themselves. I would expand it, *Fortunæ Audaciæ Romanæ votum solverunt legiones VI, XX, II Augusta.* In the third line there was, probably, \*L or LL over II in the fourth. *Audaciæ Romanæ* may be in either genitive or dative, *i. e.*, “To the Fortune of Roman Daring,” or “To Fortune, to Roman Daring.” I prefer the first. See Orelli, n. 2131.

(d) In p. 270, two inscriptions, both found since the publication of the second edition, are figured. They are unfortunately imperfect.

	LVCA	
(1)	IBRVTVS DEC AL PET	(2)
		AEFALAEAVGVSTAE PETRIANAETORQ̄̄CR
		D D

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\* If the character read by Mr. Mossman as O is really ∅, then VSO may be *votum solverunt centuriones*, &c.

Dr. Bruce expands and translates them thus :

(1) *Junius ? Brutus Decurio Ala Petrianae*. Junius Brutus, a decurion of the cavalry of Petriana. (2) *Lucanus Praefectus Petrianae Torquatae Milliarie Civium Romanorum*. Lucanus, Praefect of the ala styled Augusta and Petriana, rewarded with the torque, consisting of 1000 men, Roman citizens, dedicated this."

In the expansion of (1), I can scarcely be taken as standing for IVNIVS. Was it the second upright of N, *i. e.*, IVN? The translation is likely to deceive, for there was a place in Britain called *Petriana*, whose site still remains unidentified. "A decurion of the Petrian cavalry regiment," or "of the cavalry regiment styled Petriana," seems preferable. In (2) LVCA certainly does not stand for LVCANVS. It is more probably *Luca*, the birth-place of the Praefect. The only peculiarity in either inscription is the use of the term *torquata* in (2). Dr. Bruce remarks that "it does not occur in any other British inscription. Probably the prefect, for some deed of valour, on his part or that of his troops, was allowed, like Titus Manlius of old, to wear a twisted band of gold around his neck; or the torque may have been attached to the banner of the ala. The Ala Petriana occurs in the Rivington rescript\* of the date of A.D. 124." I am inclined to think that neither of these explanations of the mode of indicating that the regiment had won the distinction of being *torquata*, is correct. I rather think that every man in it was entitled to wear a torque as a badge of honor, not improbably with some differences as to the metal. See Vegetius, ii, 7, and Pliny, *Hist. Nat.*, xxxiii, 15.

We have evidence, as Dr. Bruce mentions, that this *ala* was in Britain in A.D. 124, and a plausible inference from (2) suggests itself, that this corps was in the island at an earlier period, either before or in the time of Trajan, for from Orelli, n. 516, we learn that this *ala* was styled *bis torquata*, *i. e.* twice decorated with the torque in his time; and the absence of *bis* in this inscription may be regarded as proving that it was cut before the regiment won this badge of honor for the second time. I am not disposed, however, to make this deduction, for reasons that will hereafter appear. Another inference, and of some importance, may, I think, be drawn from (2). The regiment is called

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\* Dr. Bruce, apparently following Mr. Roach Smith, calls the *Tabulae honestae missionis*, that have been found in Britain, "rescripts." This term should not have been used, as it is likely to mislead scholars who have not examined the subject. No example of the documents styled *Imperatorum Rescripta* has been discovered in the island, nor any thing at all resembling them.

*Augusta* Now, there is no evidence that this title was borne by any *ala* known to have been in Britain, whilst there, except one, called only *ala Augusta*, in inscriptions found chiefly at Old Carlisle. Horsley identifies, on insufficient grounds, this *ala* with the \**ala I Herculea*. I am inclined to identify it, on the authority of (2), with the *ala Petriana* and to regard the use of *Augusta* alone as manifesting the proud assumption that it was unnecessary to use any other designation to identify the corps, and distinguish it from other *alæ* serving in Britain. It (the title *Augusta*) does not appear in the inscription given in Orelli, n. 516, where the regiment is called *alæ Petrianae miliar. C. R. bis torquata*. Hence we must choose between two hypotheses, either that *Aug.* was omitted in this inscription, or *bis* in (2). Of these I think the latter much the more probable, and, identifying the *ala Petriana* with the *ala Augusta*, suspect that it got the title *Augusta* for services under *Ulpus Marcellus*. In the two earliest memorials of the *ala Augusta scil.* of the years 188 and 191, the words *ob virtutem appellata* added to *Augusta* seem to indicate that the title was then recent. Similarly on an altar of 242 we find *ob virtutem appellata* following *Gordiana* when this title of the *ala* had been recently obtained. This identification of the *ala Petriana* and *ala Augusta*, and the knowledge that the majority of the memorials of both have been found at Old Carlisle, Carlisle, and Old Penrith, suggest the conjecture that we must place *Petriana*—as we cannot find a probable site for it within a reasonable distance from *Amboglanna*—in one of these places or in their neighbourhood. Long ago, Camden, on different grounds, regarded Old Penrith as *Petriana*. Old Carlisle seems to have stronger claims, and there are those, perhaps, who, notwithstanding the identification by many of Carlisle with *Luguvallium*, would assert the right of that city to the site, especially

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\* There is great uncertainty about this *Ala I Herculea*, or *Herculia* as it is otherwise written. In that part of the *Notitia* which relates to Britain, it is said to have been at *Olenacum*, but in other parts of the same work it is said to have been at three different places, in Africa and Asia.

It is not easy to reconcile these statements. It seems to me very improbable that there were several *alæ primæ Herculeæ* in the sense "first of the Herculeans." I suspect that after *ala prima* had been originally the name of the people, and that when it got the title from Maximian, *Herculea* was put in place of that name. I should be disposed, therefore, to identify the *ala prima Herculea* of Britain with one of the *alæ primæ* that served in that island, *e. gr.*, *Ala I Thracum*, *Ala I Pannoniorum*, *Ala I Tungrorum*.

as the station that may be assumed to have been there would otherwise be omitted in the list of posts *per lineam valli*. Is the name of the river Peterell in any way connected with *Petriana*? And does the plural form—"Petrianis"—indicate that the *ala* was quartered in more than one camp or station along its course?

(e) In p. 61, Brit. Rom. Inscip., I have noticed the different meanings of the term *decurio*. We have examples of the use of the term in the third edition of "The Roman Wall," on which some observations may be useful. In p. 283, the abbreviations DEC PRINC are expanded by Dr. Bruce, *Decurio Principum*. There is no authority, so far as I am aware, for such an office, whether civil or military. *Decurio principalis* seems to me a preferable expansion. See Henzen's Index, p. 153. In p. 127, Dr. Bruce finds another *decurio* in the inscription: *Deo L. Sentius Castus leg. VI. D. P.* He reads *Decurio posuit*, and remarks in a note: "The letters D. P. can only be conjecturally extended. Something is wanting to show the dedicator's position in the legion: *decurio* (the commander of a troop of ten horsemen), the term here suggested, does this. The initials have sometimes been read *dedicat pie*." I have no doubt that the reading *Decurio posuit* cannot be justified. I would suggest *de peculio*. See Brit. Rom. Inscip., pp. 61, 92, and Orelli, n. 4416. As to the remark—"Something is wanting to show the dedicator's position in the legion"—it is sufficient to observe that such an omission is common. See n. 79 (a), and p. 307.

(f) In p. 283, a grave-stone is figured, that bears the following inscription:

D M  
GEMELLIC·A·  
FLHILARIO·S·H·FC

Dr. Bruce's remarks are:

"In consequence of the incorrect representations of the inscription that have hitherto been given, the last two letters of the word *Gemellica* being separated from the rest, and a full stop after each, great has been the perplexity of those who have attempted to read it, and various the interpretations that have been given of it. *Gemellica*, it must be confessed, is a name which we have not previously met with. *Diis Manibus. Gemellica Flavio Hilario sepulchrum hoc fieri curavit.* To the divine manes, *Gemellica* to Flavius Hilarius caused this sepulchre to be erected."

If the reading *Gemellica* be assumed as correct, I would read the inscription thus:—"Diis Manibus. *Gemellica. Flavio Hilario secundus heres faciendum curavit.*" *Gemellica* may be in the nominative, or



“To the divine manes — of the prefect of the first cohort, the Augustan, of the Lusitani, also of the second cohort of the Breuci, subcurator of the Flaminian way, and of the distribution of maintenance, subcurator of public works, Julia Lucilla had this erected to her husband well deserving. He lived forty-eight years, six months and twenty-five days.”

For this reading of the inscription, of which Hodgson gave a very incorrect copy, we are indebted to Borghesi, who proposed it in *Bull. Inst. Archeol.* for 1851, whence Henzen gives it in n. 6513. The only part of it that seems liable to question, after examination of the woodcut of Mr. Mossman's drawing, is *cohortis I Augustæ Lusitanorum*; and yet I have but little doubt that the reading is correct. Dr. Bruce's idea that “we have in the inscription a trace of the Breuci at this station,” is not supported by examination of the words. Nor is his conjecture that “the husband of Julia Lucilla was brought from Rome to superintend the roads in this district,” at all probable. We may, I think, reasonably assume that the offices given after *item* were not held by him at the time of his death or during his residence in Britain. He may have been, at the time of his death, †præfect of the first cohort of the Lusitani, although we have no evidence that this corps was ever in Britain. And yet I suspect that the office or offices that he held at that time were stated in the upper part of the stone, and that he was *Tribune* of some other cohort, perhaps *I Vardulorum*, for he seems to have been ‡*Rufinus*, the tribune, for the health of whom, and of his wife *Lucilla*, an altar was erected at this station. See Horsley's n. xevi, and *Brit. Rom. Inscrip.*, p. 140. The duties of *curator via* and *præfectus alimentorum* were united in one office. Henzen notices the rarity of the office of *subcurator*, and cites *Dig. III, 5, 30*, for examples in *municipia*. The deceased was *subcurator via Flaminia et alimentorum et operum publicorum* certainly in Italy, and probably at Rome. Dr. Bruce's ex-

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† There is no ground for Dr. Bruce's *præfecti*; the word, expressing the commanding officer of both the cohorts, *viz.*, of *Lusitani* and *Breuci*, may just as well have been *tribunus*.

‡ In p. 395, Dr. Bruce's *Roman Wall*, 3rd edn., we also find *Rufinus*, the name of the præfect of the *ala* called *Augusta*. This, possibly, may have been the same person. The commanding officer of an auxiliary cohort is styled either *præfectus* or *tribunus*, but of an *ala*, *præfectus equitum*, or simply, but not usually, *præfectus*. There are examples, but extremely few, of *tribunus* being applied to the commanding officer of an *ala*. My conjecture that the name of the deceased was *Rufinus*, and that he was tribune of the first cohort of the *Varduli*, seems to be borne out by faint traces of letters in the upper part of the stone.

pansion of CF—*curavit fieri*—is not correct. The letters stand for *Clarissima femina*, and are not found elsewhere, so far as I recollect, in a British inscription.

(h) In p. 332, the altar is figured that bears the inscription, from which it was inferred that the ancient name of Risingham was *Habitancum*. I have treated the subject in the note, p. 147, *Brit. Rom. Inscip.*, and I now take it up again in consequence of a new reading of the text given in Dr. Bruce's copy. The following is the inscription as given by him :

MOGONTCAD  
ET·N·D·N̄AVG  
M·GSECVNDINVS  
BF·COSHABITA  
NCCIPRIMASTAT  
PROSEETSVISPOS

Dr. Bruce expands and translates it thus :

“*Deo Mogonti Cadenorum et Numini Domini Nostri Augusti Marcus Gaius Secundinus Beneficiarius Consulis Habitanci prima statione pro se et suis posuit.* To the god Mogon of the Cadeni, and the deity of our Lord Augustus, Marcus Gains Secundinus, a consular beneficiary at Habitancum, the first station from the Wall (?), erected this for himself and his family.”

The objections to this expansion, which is the same as that given by Horsley, are, that there is no authority for *Habitancum* as the name of a place in Britain, and that we should have had *primæ stationis*, *i. e.*, PRIMAE, not PRIMA. To these must be now added, that in the fifth line the letters are CCI, not CI. This difference seems to me so important, that I do not hesitate, on this ground alone, to reject all previous expansions and interpretations, including that which I doubtfully suggested in *Brit. Rom. Inscip.*, p. 147; but it is by no means easy to determine the true explanation of the unusual forms found here. The following inscriptions will, I think, help us in arriving at the meaning: *Et plebei collegi Concordiæ Augustianorum familie castrensis Alexander Marcellianus et Encolphius Domitianus Cubiculari stationis primæ D. D.* Henzen, n. 7191. *Ælio Aug. lib. Glauco Cubiculario stationis primæ.* Zaccaria, *Istituzione antiquo-lapid.* p. 329. *L. Vibio Fortunato L — Haruspici Aug. N. Magistro a studiis Proc. Ducenario Stationis hereditatium.* Mommsen., *Inscip. Neapcl.* n. 3948. See also Gruter, 575, 3, and *de off. D. A. L.* iii, 29, cited by Marini, *Atti Arval.* 504, a. It appears, then, that CCI may stand



for *Cubicularii* or *Ducenarii*. Of these the † latter seems to me the more probable. See Orelli, nn. 3182, 3342, and my ‡ Notes, *Canadian Journal*, x, p. 96. We may now reasonably infer that we have the genitive case, *ducenarii*, and we must find the word governing it. N at once presents itself, used, as it not unfrequently is, for *nomine*. *Habita* then remains, which seems to form with *prima statione* an ablative absolute. But what is the meaning of *Beneficiarius Consularis habita nomine Ducenarii prima statione*? *Statio* is used not merely as a military post, but also as the place where the payments to the emperors, *e. gr.*, of taxes and duties on legacies, were made to officers appointed to collect them. See Henzen, nn. 6537, 6551, 6339. These *stationes* were often under the charge of *ducenarii*, and sometimes *beneficiarii* were appointed to discharge the duties. On this point Forcellini compresses much information in a few words. *Hujusmodi beneficiariis militibus varia officia posterioribus temporibus assignata fuisse leguntur. Nam et exhibitio cursus publici et vectigalium exactio, reorum conquestivæ, et alia id genus munera iis demandabantur, ut est apud Tertull. de fug. in persecut. c. penult. lib. 8. Cod. Theodos. tit. 4 leg. 7, et Spartian in Adrian. cap. 2 ubi vide quæ adnotavit Salmas.* With regard, then, to the words, *Beneficiarius Consularis, nomine Ducenarii, statione*, there can, I think, be very little doubt as to their signification; but the meaning of both *prima* and *habita* seems doubtful. The sense

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† *Cubicularii* is recommended by its connexion with *stationis primæ* in the examples that I have given from Henzen and Zaccaria, and also by another noticed by Marini *scil. a frumento cub. Cæsar. N. Stat. I*, taken from an inscription, which is given in full by Fabretti, p. 369. If we adopt this reading, a wide field of speculation is opened out. Was this *Cubicularius* a chamberlain of the emperor or a chamberlain of apartments for the sick? If we take the first, then *prima statione* may be interpreted with Marini, "*ultima anticamera*," *i. e.*, the ante-room nearest to the emperor's apartment; and we can readily associate this inscription with a supposed visit of an emperor, *e. gr.*, Hadrian, to the post at Risingham. If we take the latter, we may suppose that there was a military hospital at this post, and that *prima statione* is equivalent to our "first ward." The interpretation that I have given above seems to me preferable to either of these.

‡ When I wrote the remarks to which reference has here been made, I was not aware that the inscription was given by Muratori, 895, 6, and noticed by Marini, *Atti Arvali*, p. 297. The first proposes *Mensor ex castris* or *castrensibus Imperatoris*, and the latter *Mensor ex Circuitoribus*. I adhere to my own suggestion as the most probable.

may be, having held or managed the tax-station, numbered as first; or having held his first collection of taxes, *i. e.* having for the first time discharged the duty, on behalf of the *duccnarius*, of collecting the taxes. *Nomine ducnarii* seem to signify "in the name of the *duccnarius*," rather than "with the name *duccnarius*."

On the significations attributed to *habita*, we may compare *ambitiose avareque habitam Hispaniam* in Tacitus, *Annals*, iii, 13, and the common *comitiis habitis, delectu habito*. The use of *prima* with *statio* in the sense numbered as "first," may be supported by *stationis primæ*, in the examples that I have given, but it must be borne in mind that *statio* there seems to mean ante-room. Moreover the order of the terms is different from that in the inscription. I know no example of *statio* in the sense "collection of taxes," but I believe such a use of it to be consistent with Latin usage, *e. gr.*, such as that of *tabulæ*, not for "registers," but for "registration."

(i) In p. 350, an altar is figured, bearing the following inscription :

NVM·AVG·ET  
 GEN. COH. I·F  
 VARDVLORVM  
 CREQꝰSVBAN  
 TISTIO ADVENT  
 OLEG·AVG·PRP  
 F·TITIANVSTRIB

"*Numinibus Augusti et Genio Coh. I. Fidæ Vardullorum civium Romanorum eq. (X) sub Antistio Advento Legato Augustali Pr. Pr. F. Titianus tribunus posuit.* To the deities of Augustus and the Genius of the first cohort, the faithful, of the Varduli, consisting of Roman citizens, having cavalry, a thousand strong, under the auspices of Antistius Adventus, imperial legate and proprætor, Flavius Titianus the tribune erected this altar."

To this Dr. Bruce adds the following note :

"Dr. McCaul, in the *Canadian Journal* for September, 1865, gives this inscription, and says, 'I am persuaded that this stone was not found in England: from Orelli, n. 1270, we learn that C. Antistius Adventus was legate in Germany.' Dr. McCaul on this occasion certainly errs. In a letter to Roger Gale, dated 17th May, 1735, Dr. Hunter, of Durham, says it was 'found lately at Lanchester, within the ancient fortification, having its bottom broken off, and the initial letter of the last two lines.' He further states, it was to be taken to Greencroft. Hutchinson's Durham, vol. ii, p. 364. Hodgson, whose residence at Lanchester made him peculiarly familiar with its antiquities, quotes this passage and says: 'It is yet at Greencroft.' Poems, p. 99. It was removed from Greencroft to Chesters two years ago."

The following is the passage in the *Canadian Journal*, to which reference is made in the preceding note :

“Found at Lanchester, Durham, according to *Mus. Ver.* ccccxlv., 9, and Orelli, *Inscrip.*, n. 3403.

NVM·AVG·ET  
 GEN·COH·II  
 VARDVLORVM  
 C·R·EQ·M·SVB·AN  
 TISTIO ADVEN  
 TO LEG·AVG· PR· PR·  
 \* \* \* TIANVS TRIB

*i. e.*, *Numini Augusti et Genio Cohortis secundæ Vardulorum civium Romanorum Equitatæ Miliaræ sub Antistio Advento Legato Augusti Pro Prætoræ—tianus Tribunus.*

I am persuaded that this stone was not found in England. From Orelli, n. 1270, we learn that *C. Antistius Adventus* was legate in Germany.”

Dr. Bruce's statement as to my view is positive, but surprisingly inaccurate. He seems not to have observed that the inscription as given by me from Orelli is not identical with that given by him from the stone that is now at Chesters. They differ in this very important particular, that in mine the cohort is the second, in his the first. Now my opinion was almost wholly based on this difference. If Maffei's and Orelli's copies had given COH·I·VARDVLORVM, I should have unhesitatingly accepted their statement that this stone was found at Lanchester, for I knew that the first cohort of the Varduli had been in Britain (see *Brit. Rom. Inscrip.* pp. 139, 157, 160, 161), although I could discover no trace (on \*stones) of the second having served there. I thought of emending II by reading I·F·, *i. e.*, *prima fida*, but in both Maffei's and Orelli's copies the characters II were distinct, and the latter, moreover, placed a line over II, *i. e.*, IĪ, clearly indicating the second. Moreover, I found that Maffei's reading COH·II· had been accepted by Marini, *Atti. Arval.* p. 22, and Cardinali, *Diplomi*, p. 157. My persuasion, then, as stated in the *Canadian Journal*, is confirmed, not disproved, by Dr. Bruce's copy of the original, for no stone, bearing the inscription as given by Maffei and

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\* In Trajan's Diploma, A. D. 106, the second (if the reading of the *Monumenta Historica Britannica* be correct) is mentioned as at that time serving in Britain, but no other memorial of it, so far as I know, has been found in the island, and I venture to suggest that the number in the plate is Ī not IĪ. I cannot accept, with any confidence, the authority of that volume on epigraphic points.

Orelli, and copied from them by me, has ever been found in England. If I had seen, or could have consulted the authorities cited by Dr. Bruce, *viz.*, Hutchinson and Hodgson, I should, of course, have formed and expressed a different opinion.\* I searched all the books to which I had access, where I might expect to find some account of the inscription, *viz.*, Horsley's *Britannia Romana*, Camden's *Britannia*, ed. Gough, *Monumenta Historica Britannica*, Dr. Bruce's *Roman Wall*, 2nd edition, Mr. Wright's *Celt, Roman & Saxon*, and various periodicals, but I could discover no trace of it—not even of the name *C. Antistius Adventus*—in the lists of Governors of Britain. My examination on the subject was the more strict, as I suspected that a person named *Antistius Adventus* had been in the island, otherwise I could not account for the suggestion (in *Monum. Hist. Brit., Index*, p. cxlvi.) of these names as a reading for those of the person † now ascertained to

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\* In some cases Dr. Bruce seems to have overlooked authorities that might easily have been consulted. In p. 390 we find the statement:—"Mr. Roach Smith suggests to the writer that the deity associated with Jupiter is V[V]LKANVS, Vulcan." This is no new suggestion. The same view was taken in 1848 by the Editor of the *Monumenta Historica Britannica*, n. 24 b, and before that by the Rev. Mr. Mathews, in the *Gentleman's Magazine* for 1842, p. 598. A more remarkable instance occurs in the note, p. 112, where Dr. Bruce remarks:—"After much consideration, the author is, at length, constrained to adopt the views of Dr. Musgrave and of Henzen, and to read [V·V· applied to the 20th legion] *Valeria, Victrix*. The following examples seem decisive. Dion Cassius, speaking of this legion being then in Britain, denominates them *Θαλέρειοι καὶ Νιμήτορες*; and in the continuation of Orellius by Henzen, Nos. 6680, 6871, we have *Valeriæ Victricis* and *Valeriæ Victricis*." Dr. Bruce is mistaken as to Musgrave's opinion: it was, that the first V stood for *Valeriana*, not *Valeria*; and Henzen has not discussed the subject. In his *Index* he gives *Valeria Victrix*, as a matter of course, for no living Epigraphist on the continent of Europe, so far as I am aware, has given any other expansion for V.V. in connexion with the 20th legion. The passage from Dion Cassius, in illustration of the titles, has often been cited; and the reference to Henzen's nn. 6680, 6871, in which the epithets are *in extenso*, was first given by me in note p. 4, *Brit. Rom. Inscip.*, where I have briefly discussed the subject in explanation of my rejection of the reading *Valens Victrix* adopted by Orelli, Horsley and Bruce.

† I may, I trust, be pardoned for expressing my gratification that my conjectural reading—*Oclatinio*—has been found to be correct on re-examination of the stone. The only doubt that now remains is as to the group of tied letters between O and O, after *Vangon*. I adhere to the opinion that I expressed relative to them, merely changing *operibus perfectis* into *opere perfecto*, as the last letter has been proved to be O, not S as it was formerly given. Is there any trace of the tail of R under the P? If so, the group will comprehend all the

have been *Oclatinius Adventus*. When I failed in finding any trace in Britain of *Antistius Adventus*, I of course turned to the records of other countries, and soon found that a person of this name, mentioned in Orelli's n. 1270, had been legate of Augustus and Proprætor in Germany or Gaul. As I have adverted to the difficulties that I encounter in treating inscriptions found in Britain, I may be permitted to observe that I have never seen the originals, and have been able to get but few rubbings or photographs, so that in examining unsatisfactory readings or interpretations, (and my notes are limited almost exclusively to such cases), I have usually to find out or conjecture the true reading from the illustrations or printed copies, or comments of authors, who often fail to give correct representations of the originals, sometimes from accidental mistakes in copying, but not unfrequently from imperfect acquaintance with epigraphic language and forms, or even from want of common knowledge of ordinary Greek or Latin.

(k) The use of the preposition *sub* with *Consulibus*, in the sense "under," or "in the year of," is well known. So also is its use with *Legato Augusti*, and in the *tabula honestæ missionis*, in the sense "under the command of." Dr. Bruce, I know not why, varies the translation of the preposition. In p. 16, we have "under the direction of;" in p. 350, "under the auspices of;" in p. 322, "under the authority of;" and in p. 114, "through the influence of." There is not one of the things mentioned in those pages, in which the legate seems in any way to have interfered. "Under" seems quite sufficient as a translation, and, if it should be desirable to add to this, "serving under" may be used in those cases in which military bodies or persons are named.

(l) In p. 373, we find the following statement relative to Roman remains found at Papecastle:—

"Another altar has more recently been found, bearing a similar date, and dedicated by a *Numerus Frisionum Aballavensium*, a designation which it is exceedingly difficult to comprehend." The difficulty, to which Dr. Bruce refers, is not as to the meaning of the words, for they plainly signify "the detachment of Frisiones stationed at Aballava." The *Frisii*, or *Frisiones*, regarded by some as identical with the *Frisianones* or *Frisiavones* or *Frisævones* or *Frixagi*, are well known as a portion of the Roman auxiliary troops in Britain. The 1st cohort was

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1 letters required—PERE and PERFECT—by taking the semicircular part of the P (or R) as representing C.

there in A. D. 106, in A. D. 124, and at the beginning of the fifth century, as appears from the diplomas of Trajan and Hadrian, and from the *Notitia*. *Aballava* is also well known as a place in the island, although there are various opinions as to the identification of the site. In the *Notitia*, a detachment of Moors, called Aurelian, is said to have been stationed there. Nor is there any difficulty as to the use of *Aballavensium*. We have similarly *Numerus exploratorum Nemaningensium*, Henzen's n. 6731, *Numerus Brittonum Triputiensium*, Orelli's n. 1627, and *Numerus exploratorum Bremenensium*, Bruce's Roman Wall, 3rd edn., p. 315. See Brit. Rom. Inscript. p. 139. Dr. Bruce's difficulty as to the inscription, I apprehend, is that if the same principle,\* by which High Rochester has been recognized as *Bremenium*, on account of BREMEN and BREM in inscriptions on altars found there, be applied in this case, we must identify *Aballava* with Papcastle. If this be adopted, the views as to Brampton and Watchcross must be abandoned, and great latitude must be given to the terms *per lineam valli* in the *Notitia*. For the present it must suffice to have noticed the difficulty. At some future time I hope to examine the general question relative to the stations after *Amboglanna*, and to offer some suggestions, that may, perhaps, be useful, even though in some cases expressed doubtfully, as I have not the advantage of personal knowledge of the localities.

(m) In p. 414, we have the following inscription, on a stone at Netherby:

· D · M  
TITVLLINIA  
PVSSITTA ·  
CIS · RAETA  
VIXSIT ·  
ANNOS · XXXV  
MENSESVIII  
DIES · XV ·

Dr. Bruce expands and translates it thus:--

"*D[iis] M[anibus] Titullinia Pusitta ci[v]is (?) Ræta vixsit annos xxv, menses viii, dies xv.*

"To the divine Manes, Titullinia Pusitta, a native of Leicester, lived thirty-five years, three months, [and] fifteen days."

The inscription seems simple; almost the only doubtful point appears to be as to CIS, and of this, I think, Dr. B.'s expansion should be

\* See Brit. Rom. Inscript., note, p. 138.

received. But it is astonishing that he should have entertained the interpretation of RÆETA that he has given *scil.* "of Leicester." The Latin term for Leicester is *Rata*, not *Ræta*. The word clearly designates the woman as one of the people, called *Ræti*, who lived near the Alps, about the region now called the Tyrol.

We may, probably, find a reason for the presence of this female at Netherby, *castra exploratorum*, when we recollect that at Birrens or Middleby, *Blatum Bulgium*, about 12 miles distant, there were *Cives Ræti*, serving in the 2nd cohort of Tungrians stationed there. See *Brit. Rom. Inscrip.* p. 244. But there is another interesting point in this epitaph, *viz.*, the name of the woman—*Titullinia Pussitta*. *Pussitta* seems to be a term of endearment—"little pet"—perhaps, derived from the Latin \**pusillus*, *pusa*, to which also I would trace the name *Pusinna* in the following inscription given in the Roman Wall, 3rd edn., p. 231:—

D	M
DAGVALD·MI	
PAN·VIXIT·AN	
PVSINNA	
TITVL	

Dr. Bruce expands and translates it thus:—

"*D. M. Dagvald[us] mi[les] Pan[noniæ] vixit an[nos] Pusinna[conju]x titul[um] [posuit].*

"To the divine Manes. Dagualdus a soldier of Pannonia lived years — Pusinna his wife placed this memorial."

No exception can justly be taken to the phrase *titulum posuit*, for, as Dr. Bruce remarks, it is not uncommon in continental epitaphs. The resemblance, however, of *Pusinna Titul*— to *Titullinia Pussitta*, suggests the suspicion that we have in the two epitaphs the same names, with a slight variation in one of them. As some letters intervened between *Pusinna* and *Titul*, and there seems to be on the stone the relic of an X before the latter, Dr. Bruce suggests *conjux*. Even if we accept this, *Titul* may be the beginning of *Titullinia*, the name of the daughter, who united with her mother in the erection of the memorial. Although I have thought it better to mention this interpretation, I am inclined to prefer the obvious expansion—*titulum posuit*.

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\* Thus we have in Christian inscriptions (De Rossi, nn. 556, 572,) *Pisinnus* and *Pitinnus*, and even *Pitzinina* (n. 404), the ancient form of *Piccinina* and *Pizinina*. Should we trace to the same root our use of *Pussie*, as a pet name of a little girl?

As I have cited the epitaph of Dagvald, I may mention, in emendation of Dr. Bruce's expansion, that the Latinity of *miles Pannonia* in the sense "a soldier of Pannonia" is, as I have already remarked, objectionable. It is probable that on the missing portion of the stone was COH·I, *i. e.*, COH·I·PAN, the first cohort of Pannonians, which, we know from one of Trajan's diplomas, was in Britain in 106.

(n) In p. 147, a slab is figured, that was found in the ruins of the ancient bridge across the North Tyne. Unfortunately, only a very small portion of the inscription remains:

RA.V. EST\*\*\*\*  
RANTEAELIO  
LONGINO  
PRAEF·EQQ

Dr. Bruce expands and translates it thus:

"Restituit? curante Ælio Longino Præfecto Equitum, *i. e.*, restored under the inspection of Ælius Longinus, a præfect of cavalry."

This is, no doubt, satisfactory, so far as it goes, and, probably, is all that can be made out with certainty. Some conjectural readings, however, have occurred to me that seem worthy of being mentioned. RAM\* as the last three letters of ARAM, is an obvious suggestion, which should at once be accepted, if the stone were an altar or the part of one. But as it seems to be merely a panelled slab, we must look for some other explanation. Were the letters RANA, the N and A being tied as the R and E were? If so, we may supply *Ala I Thracum Vete*, *i. e.*, *Veterana*. The term *ala* may be regarded as certain, and if *Veterana* be admitted, the terms *I Thracum* may be inferred, for, so far as I know, this is the only *ala* that served in Britain that had this title. The *Ala I Thracum* is mentioned in Trajan's diploma of the year 104, and a memorial of it has been found at Watermore. In the diploma of Aurelius and Verus, of the year 167, this *ala* is named as *Ala I Thracum Veterana*, and it was then serving in Lower Pannonia. See Cardinali, *Diplomi*, p. 239. My conjecture is that it got the title

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\* On the supposition that the letters were RAM, other readings may be suggested. They may be the last three letters of *terram*, *i. e.*, *supra terram scil.* above ground (see Orelli, n. 589); or of *straturam*, the pavement (see Orelli, n. 4130, Henzen, nn. 6609, 6612, and Reinesius, p. 298); or we may read *structuram* or *fulturam* (see Facciolati *in verbis*), &c. Whatever we supply, we may assume that the *ala* (for the rank *Præfectus Equitum* implies that the corps was an *ala*) was the *Ala II Asturum*, which was stationed in the neighbourhood, at *Cilurnum*.



*Veterana* before it left Britain, and thus that the date of this slab must be placed between 104 and 167. This first cavalry regiment of Thracia had also the title *Augusta*, which was probably given to it by Nerva. See Henzen's n. 5439. There is no memorial of it, however, in Britain, in which this title was used. At the time the *Ala Petriana* was called *Augusta* (see 79, *d*), the *Ala I Thracum*, so far as is known, was not in the island, nor is there any evidence that it was ever sent back there, unless, indeed, we identify the *Ala I Thracum* with the *Ala Thracum Herculania*, and that with the *Ala I Herculia* of the *Notitia*.

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## AMERICAN LITERARY FORGERIES.

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Amid the varied literature of England's eighteenth century, two noticeable but very diverse features attract the attention of the curious student. First in time, as in real worth, is the rise of a spirit of sound literary criticism, beginning with Nicholas Rowe's "Shakespeare" in 1709, and expanding with ever increasing power and acuteness until a juster estimate of the great Elizabethan poets was followed by the revival of a taste for simple natural poetry. Pope's school ended with the first generation of feeble imitators of that great master of poetic art; and a growing conviction developed itself that the so-called "Augustan Age" of Queen Anne might be fitly matched with that which Virgil and Horace adorned, and yet be inferior to more than one elder age of English literature. It was while canons of taste and principles of literary criticism were thus being reduced to form, that a series of literary maskings, or forgeries, appeared, which could only have been perpetrated in an age of recently revived taste for antique literature.

Elizabeth, Lady Wardlaw, of Pitreavie, began the ingenious literary masquerade by her "Hardyknute," a heroic ballad, professedly derived from an ancient parchment found in a vault of Dunfermline Abbey. By and bye Macpherson followed with his "Fingal," "Temora," and other Gaelic epics; Percy, with his half spurious "Reliques of Ancient

English Poetry;" Chatterton, with his "Rowley Poems," recovered from an old chest in St. Mary Redcliffe Church, Bristol, the work of an imaginary priest of the reign of Edward IV.; and so the deceptions proceeded with more or less ingenuity and poetical genius. In prose also an equal success was achieved. Charles Julius Bertram, a youth of English descent at Copenhagen, palmed on Dr. Stukely his "De Situ Britanniae," as a manuscript of Richard of Cirencester, a monk of the fourteenth century; and not only did it deceive that credulous dupe, but antiquaries and historians of the highest class continued to quote, and appeal to its authority, for nearly a century. The ingenious frauds culminated at last in the forgeries of Ireland, who not only produced a contemptible play of his own writing, styled "Vortigern and Rowena," as one of Shakespeare's lost dramas, but had it accepted by Chalmers, Boswell, and other literary authorities, and actually produced as such on the stage at Drury Lane.

The history of this peculiar phase of the literature of England's eighteenth century, with the volumes of critical controversy it gave birth to, curiously illustrates the transitional stage in which, while a better taste was reviving, the requisite knowledge had to be mastered, and the first principles of criticism were undetermined. Warton, Bryant, Milles, Walpole, Chalmers, and a host of other literary men, are found publishing volumes of controversy about professed antiques, which would now be discarded as spurious by the merest tyro in early literature. But just as the revival of learning had to precede the rise of an original native literature in the sixteenth century: so, in that eighteenth century the taste for the antique, with its spurious creations, preceded alike the return to a higher standard in poetry, and a just and critical estimate of early English literature.

In this New World we are passing through an analogous stage, and accompanying it with the production of not a few spurious antiques, modeled to suit the taste of our own day; though European critics seem scarcely alive to what is transpiring in America's nineteenth century. Vague fancies of the lost Atlantis; of analogies and synchronisms between Egyptian and Mexican antiquities; of Phœnician, Punic, or other remotest relations between the Old World and the New, had been floating dimly before the minds of American antiquaries: when the publication of the *Antiquitates Americanæ* by the Antiquaries of Copenhagen, gave shape and consistency to this pleasant dreamland. It was no longer Egyptian hieroglyphics, or Punic inscriptions that had

to be looked for. Was not Dighton Rock, in Massachusetts—which the Rev. Dr. Ezra Stiles, had shown in 1783, to be graven in the old Punic or Phœnician character and languages—proved by the Danish Antiquaries of 1837 to be in the Runic character and Norse language? The fancy was welcome to thousands. Learning and critical judgment were for the most part scant enough, but faith and zeal abounded; and if a sceptical doubter appeared on American soil, the high court of final appeal at Copenhagen pronounced against him without fail. So the famous “Grave Creek Mound Inscription” turned up opportunely on the banks of the Ohio, and gave occasion to a world of fine writing, and learned disquisition. An axe inscribed in linear characters was found at Pemberton, New Jersey, and submitted to the American Ethnological Society; and rumours of similar inscriptions, from time to time, furnished sensational paragraphs for the press.

But after a while the Dighton Rock itself fell into disrepute. The believers in its Runic legend got laughed at for their credulity; and the antiquaries of the West fell back on their old search for the lost Ten Tribes. Mr. David Wyrick of Newark took the lead in this revived quest, and ere long Harper’s “Weekly Journal of Civilization” delighted its readers with a facsimile of “The Ohio Holy Stone,” a masonic key-stone as it proved to be, graven in Hebrew characters, and older than the days of Solomon. But this was a bagatelle to what followed. The results of the indefatigable zeal of the Newark antiquaries showed what invaluable treasures await the researches of the American archæologist, when once rightly directed. The most marvellous disclosures were rumored from time to time. But wonders could go no further, when at length, in 1860, there turned up in an Ohio mound a new version of the Ten Commandments, graven on a tablet of stone, in antique Hebrew; and it became obvious, ere long, that the actual grave mound had at length been discovered in which Moses, the servant of the Lord, was buried, of which, for two thousand three hundred years, it had been truly said “No man knoweth of his sepulchre unto this day.”

It was obviously difficult to achieve much more in this direction. The great American war, moreover, came ere long to occupy men’s minds with more earnest thoughts; and so the mounds of the west were left once more “to dumb forgetfulness a prey.” But the spirit of faith, and the uncritical credulity of an active but uncultured inquisitiveness, were by no means quenched. The lost Ten Tribes and their Hebrew

chroniclings passed into disrepute, and American antiquaries of the sensational type resumed their search for runic inscriptions.

With the thrilling incidents of the great conflict between North and South, the Potomac had become an historical river to the civilized world; and so the antiquarian field of research changed its ground, and there appeared in June, 1867, in the *Washington Union* a wonderful account of discoveries just made in that neighborhood by "Thomas C. Raffinsson, Fellow of the Royal Society of Northern Antiquaries of Copenhagen." Professor C. C. Rafn was the great authority in the *Antiquitates Americane*, for the Northmen's Vinland, Huitramanaland or Whitemen's Land, Irland il mikla, or Ireland the great, &c.; and so Raffinn-son now fitly followed up his discoveries.

This learned Northern Antiquary was, it seems, on an exploratory tour in the States, though unheard of by the worshipful mob of lion-hunters; and so he writes to the *Union*, "Permit me through your columns to publish the details of the discovery, near the city of Washington, of the remains of an Icelandic Christian woman, who died in the year 1051, and of the inscription in Runic characters which marks her grave, the announcement of which has already spread by telegraph through the New World to the Old." The learned Antiquary proceeds accordingly to comment on the historical importance of a disclosure which confirms the discovery and extensive explorations of the American Continent by the adventurous Northmen, five centuries before the landing of Columbus. It gives, he says, "another illustration of the great length of time it requires to write an accurate and truthful history;" and he therefore craves the readers' indulgence in favour of his present narrative, begging them "to await the publication, within the coming year, of the full account of my archæological researches in the Orkneys, Iceland, America, &c., wherein the more copious text will be accompanied with maps and drawings."

But a marvellous preliminary discovery has to be first related, quite in the old eighteenth century style, though surpassing even Lady Wardlaw's recovery of an antique parchment from the Dunfermline Abbey vaults. "In 1863," writes the Danish explorer, "in digging about the ruins of the ancient college at Skalholt—said to have been built in 1057 by Bishop Isleif,—in Iceland, the Latin MS., bearing date 1117, and now known as the Skalholt Saga, was exhumed entire." What opinion European archæologists would be likely to form in reference to this idea of digging up a manuscript seven or eight

centuries old, as perfect as though it were an old coin or a flint arrow-head, might be easily predicated one would think. Of this, however, we shall be able to produce an illustration. But, for our New World antiquaries at least, while their zeal is unmatched, their knowledge is most frequently on a par with those of the eighteenth century critics from whom Ossian, Rowley, and Richard of Cirencester, obtained so undoubting a welcome; and so this supposed exhumation of a perfect manuscript saga of the twelfth century was received with the same mild wonder as that with which Catcott or Barrett accepted from the Bristol charity-boy, lyrics, epics, and whole dramas of an unheard-of poet of the days of Henry VI. and Edward IV. In just such a happy stage of innocent faith, Jack-and-the-Beanstalk, Tom Thumb, and all the fairies and giants of the nursery, delighted our childhood. They are to be envied, for whom its pleasant dreamland has not yet faded into the light of common day.

An abstract is accordingly given, in the *Washington Union*, of the contents of the new found Saga. If any one among the genuine antiquaries and scholars of America, already familiar with the *Antiquitates Americanae*, did turn to this new revelation, in the first blush of its novelty, with faith in its possible genuineness, his mortification must have been great to find that it only reproduced the old story, already familiar to him, of Vinland, Huitramannaland, the encounter with the Skraelings, the determination of latitude by observations on the length of day and night, &c. The actors have new names, and the scene is shifted from Mount Hope Bay to the Chesapeake; but the piece is, as a whole, only the old play under a new title. The inventive faculty, indeed, appears to have been of the meagerest for such an undertaking. With a Defoe, a Swift, or even an Edgar Allan Poe, for the modern skald, the story might have proved a lasting addition to our New World literature. And yet there is internal evidence enough to make one suspect that the masker is, if not a fellow countryman of the witty Dean of St. Patrick's, at any rate one of those American-Irishmen, whose hereditary patriotism is apt to crop out at times in such odd ways.

The Saga, we are told, "is a most remarkable story, apparently written by a monk, and purports to give an historical account of the explorations of the Icelanders in the new found Vinland, and in the country to the south and west, called Huitramannaland Irililand Mikla, or great Ireland," which is spoken of as having been long before

discovered, and visited repeatedly by the Irish. "This is a most important statement," adds the narrator: who, forgetting at the moment that he is masquerading in the guise of a learned Dane, assures his readers that all the glory which the Copenhagen antiquaries have been apportioning to their Norse ancestry, is, by their own showing, due to an Irish Columbus. For "there are numerous allusions in the Sagas, and even in the Landnamaboc, of unimpeachable veracity, of this earliest discovery of America by the Irish."

But this is by the way. The main narrative runs to the effect that a voyage was undertaken, under command of Hervardur, along the coast of Huitramannaland in a southerly direction. They explored the coast; ascended various rivers, and at length getting into what must have been the Potomac, they pushed up it, until their progress was finally barred by a succession of falls, "to which, from their general shape and foamy appearance, they gave the name of Huidœrk, or White-Shirt:" both the Norse and Irish rovers of the eleventh century being, no doubt, very particular about the clear-starching of their linen. The narrative now becomes a little more graphic. These White-Shirt falls receive a special notice in the old saga, "for it is stated that, in their neighborhood, the illegitimate daughter of Snorri, who was born in Vinland, and was a son of Karlsefne,"—already celebrated in the genuine narrative of Professor Rafn,—“was killed with a small spear or arrow, and buried near the spot where she fell.” Now Sir Thomas Murray,—to whom the Skalholt Saga was referred by its discoverer, Mr. Philip Marsh, and by whom it has recently been translated into English,—has conjectured that the sea, here spoken of as receiving the waters of several large rivers on its western shores, and up which the adventurers seem to have sailed, is the Chesapeake Bay; and from some observations as to the length of the days and nights by which the latitude was determined, he supposed that the White-Shirt Falls were the great falls in the Potomac River above Washington. This, indeed, we are told he mentioned as the merest fancy, to which no importance could be attached. But the learned Danish traveller, Mr. Raffinsson, is able to confute such diffident modesty, and indeed to turn the results of such conclusions to account for robbing his own Norse ancestry of their highly prized honours as the first discoverers of America; for he says: "It is now permitted me to say that the authenticity of the Skalholt Saga being indisputably established by the recent discovery of the very grave of the daughter of Snorri, the speculations of this learned gentleman

are proved to be correct. The confirmation of this Saga will also clinch the theory that the Irish were the first Europeans to discover the continent of America." How this latter conclusion, so gratifying to all Irishmen, follows from the premises, is not very obvious: unless, indeed, the mere difference of a letter between Ireland and Iceland is to be ignored, as too insignificant a trifle for notice by any candid mind. But we have Mr. Raffinsson's assurance that it is so; and when a learned Dane, with such self-sacrificing disinterestedness, makes the assertion, it is not our part to challenge it.

With this strangely recovered historical document of the twelfth century in his mind, Mr. Raffinsson, on reaching the United States, very naturally proceeds to Washington, and pushes on to the Great Falls of the Potomac, "to ascertain if any traces of the visit of Hervardur were to be found;" and sure enough, here is the very inscription, in even better counterpart of the original Saga than the famous Dighton Rock record of Thorfinn and his fellow explorers, who, according to the Thorfinns Saga, accompanied Karlsefne's expedition to Vinland, or New England, in A.D., 1007. Such curious coincidences are not uncommon in romance; but in a grave historical confirmation of such obscure chroniclings "materially affecting history," they do startle one a little.

In 1863 the Skalholt MS. was dug up, none the worse for its seven and a half centuries' exposure to damp and decay. On the 28th of June, 1867, Mr. Raffinsson, in company with M. Louis Lequereux and other learned associates, including "the distinguished geologist, Professor Brand," had "the happiness and satisfaction," on scraping away some lichens, to find "on the north-east side of the large rock commonly called the 'Arrow-Head,' on the Potomac river, two miles below the Great Falls, and about thirteen miles above the city of Washington," the very "White-Shirt inscription" of A.D. 1051, they were on the look-out for, with its record of Snorri's illegitimate daughter, Syasy the fairhaired. With its assigned restorations, and rendered in Roman letters, it runs thus:

HIR HVILIR SYASY FAGRHARDR AVSTFIRTHINGR IKI  
A KILDI SYSTR THORG SAMFETHRA HALFTHRITGR  
GLEDA GVD SAL HENAR XMLI

Which, according to its learned discoverer, reads, "Here rests Syasy the fairhaired, a person from the east of Iceland, the widow of Kjoldr,

and sister of Thorgr, children of the same father, twenty-five years of age. May God make glad her soul. 1051." Thereupon follows a great display of learning. "This remarkable epitaph, it seems, is written in the ancient style of runes, known as the Nevok, a variety found only in the Orkneys and the isle of Barljof,"—a statement somewhat startling when one remembers that the eleventh century is anything but ancient for runic writing. Then the description of these peculiar "Nevok" runes: "easily recognised by being the most regular, the deepest cut," &c.; shows that they present "by far the most ancient variation, though it was employed with remarkable purity on monumental stones in the Orkneys, as late as the fourteenth century;"—all which must be surprising to Orkney antiquaries, above all others; unless indeed Mr. Raffinsson, in passing through Orkney, made some wonderful discoveries there also, unheard of before or since. The wonder has always been that, notwithstanding the occupation of the Orkneys by Northmen for centuries, no single monumental stone graven with runic characters is known to exist there; and no runic inscription of any kind had turned up, till the exploration of the Maeshowe by James Farrer, Esq., in 1861, brought to light a splendid array of them. But it would not be easy to describe anything less like the Maeshowe runes than is assigned in the above characteristics. It has already been remarked in the "Præhistoric Annals of Scotland," "The Runic inscriptions on the Manx crosses are regularly and sharply cut with a chisel; whereas the most of the Maeshowe graffiti are slightly and irregularly scratched, as if with a nail." It is obvious that we must still await the long-delayed publication of the full account of Mr. Raffinsson's archæological researches in the Orkneys, Iceland, and elsewhere.

But another feature also rather startles the reader already familiar with former Runic discoveries. The inscription, though somewhat of a wordy jumble as a whole, begins and ends satisfactorily. The beginning is, indeed, the same as one well-known Greenland inscription, viz., that of Ikigeit; while, by a curious coincidence, the pious sentence with which it ends, occurs on another of the Greenland inscriptions from Igalikko, to be found in the same suggestive volume of the Danish Antiquaries; and, indeed, on the same page in others reproducing its contents.

Perhaps American archæologists were tempted by this to suspect a hoax, the darning and patch-work did look so undisguised. But before



we follow their example it is only right to peruse the learned discoverer's peroration. "No longer is the Huitramannaland a visionary Atlantis. No longer is the discovery of America by the Irish, in the dim distance of the panorama of history, pointed to as if by the spectre of a dream. Syasy, the fairhaired, as if gifted with the life of a Methuselah, has risen from her sleep of eight centuries, and traced on a rock, with an unerring finger, the distinct outlines of the fact, and confirmed her wonderful story with her ashes:"—for we ought to have mentioned sooner that two molar teeth were dug up, along with some bronze trinkets, and two Roman or Byzantine coins.

This "Extraordinary discovery on the Potomac" went the round of the American papers; with what amount of credit it would be hard to say. But no scientific or literary journal of note troubled itself with enquiries after the learned Dane; nor is it likely that any orders were sent home for Sir Thomas Murray's English translation of the *Skalholt Saga*, though such a book would seem a very fitting addition to American libraries. The story lived out its nine days' life, as another curious illustration of our young Western World passing through a phase analogous to that of England's eighteenth century fit of spurious antiques and literary forgeries, and so seemed on the high road to oblivion: when, lo! it makes its debut, as a genuine contribution to science, in the pages of an English scientific periodical.

The article is one of the curiosities of literature. In the *Washington Union* the masquerading is overdone, and provokes a smile at last by its extravagance. But in the London *Anthropological Review* for April, 1868, it reappears tricked out in so becoming a style that it probably failed at first sight to startle the intelligent reader, notwithstanding the novelty of the idea suggested by its title: "Icelandic Remains on the Potomac, near Washington." It is worth studying as a specimen of what choice terms can do even for a somewhat meagre fancy. The original American version runs very much in the old fashioned style of antiquarian news. But in the scientific resumé we read: "A very important contribution to the archaic anthropology of the American continent, interesting to the historian of the early migration of races, has just been made by Professor Thomas C. Raffinsson, of the Royal Society of Northern Antiquaries of Copenhagen, in the immediate vicinity of Washington, establishing beyond all doubt the early settlement of that district by inhabitants of Iceland, and confirming, in a signal manner, several statements made in the *Skalholt Saga*

of A. D. 1117, of Arnas Magneas." Then follows a fine version of the whole story of "the White-Sark or Shirt inscription." The editor very acutely draws attention to the word *samfethra*, "same father;" and puts the case with refined delicacy in this fashion. It "alludes to a laxity of morals probably prevalent, unless it is to be referred to a common descent from some more remote ancestor." *Hulfthritgr* is explained as meaning half-thirty, a peculiarly Icelandic way of expressing "twenty-five years of age." The date, we are told, "is given in runic characters, as in many other inscriptions." Where they are to be seen is not stated. The MS. is merely said to have been found in the ruins; not "exhumed." Sir Thomas Murray and the Skalholt Saga are referred to in passing, as though everybody knew all about the distinguished scholar and his translation. "The White Shirt Falls were identified by Sir Thomas Murray," the reader is informed, "with the Great Falls above Washington, on the Potomac River, although the last-named gentleman"—Mr. Philip Marsh, no doubt of equally great European reputation, being the well-known exhumers of the Skalholt MS.;—"put forth his identification as a mere hypothesis at the time. That it was, however, exact, the discovery of the grave of the daughter of Snorri, and of some of her remains, has proved."

Who shall venture to laugh hereafter at Dean Milles or Bryant, with their old Rowleys; or even at Boswell on his knees before the "Vortigern and Rowena" MS., or the Shakesperian love letter to Anne Hathaway, with its veritable lock of the poet's hair? And yet this date of A. D., 1051, is a very modern one, considering the sort of antiquity with which archaic anthropologists have been wont to sport familiarly of late years. It is indeed a recent affair, compared even with Mr. David Wyrick's discovery of the grave of Moses, and its new version of the Ten Commandments. It is to be regretted that the latter should have escaped the notice of European savans. It would have been interesting to learn if it had any chance of a better reception in some quarters than the old Hebrew documents have of late been favoured with.

But American Runic Inscriptions are by no means exhausted. The mythic regions of the unexplored west furnish the most promising localization for such marvels. At present they are only effecting the passage of the Mississippi. Early in the present year, a sensational column in the *St. Louis Republican* invited American Archæology to concentrate all its acumen in that quarter, before modern progress

obliterates relics such as Layard and Botta could not match. Engineering science has brought all its latest appliances to bear for the purpose of bridging the Mississippi River ; but only, if we are to believe this marvellous story, to discover that the thing had been much more effectually accomplished ages before. The excavations, it seems, were proceeding for the foundation of one of the main piers of the bridge, on the western side ; a huge blast of gunpowder was fired by workmen engaged in blasting the rock, when, "instead of having to wait the usual time for the smoke to clear away, they saw it ascend rapidly in a column, as though issuing from the smoke-stack of one of our steamers." They had, in fact, blown up the roof of a wonderful "cavernous excavation," which is fully described under the heading of "Prehistoric Remains in the west." Ropes, ladders, and torches were procured ; and the writer of the narrative was "invited to accompany the Board of Engineers with a delegation from the Academy of Sciences and the Historical Society." He promises "a full exposition of the discovery, when he shall have made a more careful survey." Without waiting for this, however, his present abstract has marvels enough for the students of "Archaic Anthropology" and "the early migration of races." The subterranean passage, we are told, "passes entirely under the river to the Illinois shore, and whether it is wholly the work of some ancient race who once inhabited this land, whose interesting remains are strewn so thickly up and down this great valley, or whether it is partly natural and partly artificial, remains to be seen. In any case it is none the less stupendous. The main passage we should judge to be about twenty feet high by fifteen broad, and systematically arched overhead ; part of the way by cutting through solid rock and part by substantial masonry. The bottom seemed to be much worn as if by carriage wheels of some sort. There are many lateral passages which of course, we had no time to enter. These are about eight feet high and six feet wide. In the main passage we saw no tools or implements of workmanship ; but on entering one of the lateral branches we soon emerged into a large chamber supported by leaning pillars of solid rock when the chamber was excavated. Around the walls of this chamber there were what seemed to be niches closed with closely-fitting slabs, each slab covered with inscriptions in Runic uniform characters, which to our eyes bore a marvellous resemblance to those upon the slab in the Mercantile Library, which was brought from the ruins of Nineveh. Between the niches were projecting pilasters, with draped Assyrian or

Egyptian heads, which presented a most impressive and awe-inspiring effect as they were illuminated by the torchlight. Those sweet, sad faces looked down upon us from the ancient ages, like the souls of the departed. One of the passages opening on the north side seemed to follow the course of the river, and it is believed extends to the great mound, now being removed, on the North Missouri Railroad, which was the theme of much interesting remark at the last meeting of the Historical Society;”—was indeed, in all probability, the germ of the latter marvel. American mounds, it must be remembered, are very different affairs from the little mole-hills on which Sir Richard Colt Hoare and his successors have industriously toiled, with corresponding results. The American grave mound is an earth-pyramid approaching rather to the proportions of Silbury Hill than those of the ordinary Anglo-Saxon barrow. Its exploration is, therefore, no ordinary labour; and it would obviously never do for such a “parturient mountain” to produce no more than a broken pipe, or some Indian arrow-heads. Something very different is looked for, and—unless the explorer is wholly ignorant of the duty he owes to the community,—has to be found, if not by actual discovery, then by interpretation. A theory of relationship between the special mound, and any others, however remote, is one of the simplest and most honest solutions of the difficulty. In one case the greatest satisfaction has been derived from the demonstration that the mound in question, when connected by imaginary straight lines with two others, some miles off, made a triangle, of which one of the angles approximated to a right angle. Had it only been proved that all the three angles were equal to two right angles, it would, no doubt, have demonstrated that pre-eminence of the lost science of the New World, of which no antiquary of the Great West entertains any doubt.

But to return to the narrative of the *St. Louis Republican*; much more follows in the usual thorough-going style of such New World discoveries. There is a mound, known as the Big Mound, about a mile above the bridge; another known as the Monk’s Mound, on the other side of the river; and a whole chain of similar earth pyramids “extending from the river to the bluffs, a distance of nine miles. It is conjectured that the tunnel under the river and the mounds are connected, and that there was in ancient times an opening through the mounds from this subterraneous highway.”

But leaving conjecture, one more bit of “personal observation” may

be worth noting. "As, in returning, we passed through the pilastered hall above described, we observed a descending opening about seven feet high by three feet wide. Following this in its windings about fifty yards, we came to a flight of forty-one steps, ascending which, we found ourselves in another chamber of wonders, oval in shape, about seven feet long, twenty feet high, and three feet wide,"—rather puzzling dimensions for an oval chamber. "The walls were sculptured in magnificent bas-relief and Runic inscriptions. Professor Bacchio, the learned Sanscrit scholar of the University, who was with us, has taken upon himself the task of translating the inscriptions. Of the meaning of some of the words and the colossal sculptures he speaks very confidently."

European scholars may possibly wonder that they have not before heard of this learned Sanscrit scholar, who reads off "Runic inscriptions" at a glance. He belongs to the same class as the learned geologist, Professor Brand, the scholarly Sir Thomas Murray and Mr. Philip Marsh, and the "Professor Scrobein," to whom with "Professor Graetz of Gottenburg," the mysteries of the Newport Round Tower were left for solution: according to an older narrative of the same class, of which an account has already been furnished to the readers of the *Canadian Journal*.\*

This latest Runic discovery has also attracted the notice of English litterateurs; but in this case it has come into the hands of those whose habitual dealings are with more modern matters and dates than usually fall to the lot of "Archaic Anthropologists," and so the marvel has had a somewhat incredulous reception. "A piece of news reaches us," says the *Athenæum* of 13th February, "through the *Missouri Republican* which, if it should prove to be true, is of the highest historical interest. But is it true?" A brief abstract is then given of the above discovery, divested of some of its most astounding wonders; and to this is added the remark: "If this report is not a joke of the 'Western Boys,' it brings us the most important evidence yet produced of the existence in ancient days of a civilized race, in the great valley of the new world. The fact of the tunnel occurring just at St. Louis is suspicious. If the facts are truly stated, an ancient city must have stood on the Mississippi, near to St. Louis, though probably on the opposite bank. If so, the cases of Memphis and Cairo will have found a parallel in the New World."

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\* Vide "Historical Footprints in America," *Canadian Journal*, Sept., 1864.

So far the report appears to be the work of a correspondent. The editor adds, in *propria persona*, "We wait for further detail; but we fear the 'discovery' is all a joke." He was favoured, we may presume, with no more than this diluted modicum of the original narrative, concocted to suit his weak digestive organs. Even this is pretty strongly seasoned. But had he read the learned Sanscrit scholar, Professor Bacchio's, reports about the runes and sculptures, all doubts as to its possessing "the highest historical interest" would have vanished. For example, "one of the magnificent groups he is certain is intended to represent Ahasuerus crowning Queen Elizabeth; and another group of colossal figures, representing captives following the car of a victorious conqueror, are portraits of Luke Deuteronomy and the friend going into captivity."\*

As matters for serious credit, or contributions "to the history of the migrations of races," such ingenious canards of the American press had better be left to the dwellers around the great mounds of the far west, where a vague wonder is begotten by the earthworks of a forgotten past; and the unsophisticated backwoodsman thinks nothing too wonderful to account for their origin. But this restless craving for some solution of the mystery of a vast continent, revealing everywhere monuments of extinct races, but without a history older than the sixteenth century,—however illogical and uncritical in its manifestations,—is not to be confounded with the credulity of stolid ignorance. The gold plates of the Mormon Gospel were, indeed, exhumed in the same apochryphal fashion; but its believers are recruited, to a large extent, from the Old World. After all it is better to have undue faith than intolerant scepticism, as the ally of credulity, whether it be among simple handicraftsmen and tillers of the soil, or with those who assume to dictate new creeds alike in science and religion.

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\* As this paper is passing through the press, a letter of Mr. E. G. Squier, dated from New York, appears in the *Athenæum* of March 20th, in reference to the "monstrously absurd stories about archaeological discoveries, chiefly in our Western States." Of the special discovery in question, he says, "substantially the same story had been previously published, with the difference that instead of a tunnel, vast vaults, wonderful in monuments 'of Assyrian type,' had been discovered hewn in the stony depths of Rock Island. I have before me a long letter from a Vienna *Savant*, earnestly inquiring into the particulars of the discovery of 'immense subterranean' in the cliffs of the Palisades, on the Hudson river, just above this city: and expressing surprise that American Archaeologists have not given a better account of them. . . . . I could enumerate numbers of these hoaxes relating to Mexico and Central America, including those of the 'Chevalier Pontelli,' in Guatamala, of which the illustrations astonished the readers of the picture papers of France, England and Germany; and also those relating to the extraordinary Greek MSS., found at Oaxacingo (Hoax-by-Jingo!) in South Mexico."

It is by no means to be ascribed to the rude ignorance of our New World settlers that such marvels reappear from time to time. It is, on the contrary, because curiosity is already awakened, and education is pervading the masses of the people, that a reason is asked for the traces of extinct precursors alike of the European and the Red Indian, on the prairies and in the great river-valleys of the west. Knowledge is no longer confined to an exclusive cast. It is, indeed, very superficial as yet; and no doubt the shallow drafts do at times intoxicate the brain. But it is widely difused. The wonder which belongs to the stage of intelligent childhood, is accompanied by its large, uncritical faith. One among its curious phases, is the eagerness for grand telescopes, and the discovery of new asteroids, comets, and other celestial wonders. An astronomical observatory is one of the first demands of a Western University, and funds are forthcoming without difficulty for purchasing the requisite instruments; not, indeed, to be employed in such work as absorbs the patient labours of many an observatory staff in the Old World: accumulating data, the full results of which are to reward future generations; but to bring "the wonders of the heavens" within reach of the people. If the institution is to prosper, it is bound to discover a comet or two per annum; anticipate European observatories in the finding of the last asteroid; or, at the least, beat them all in the number of its solar spots, or November meteors. For ordinary work its course is equally well defined. The nebulæ, double stars, mensurations dealing with the vague immensities of space, the supposed central sun of the visible universe, and the like themes of fanciful speculation, have a marvellous fascination for the popular mind, just awaking to the charms of knowing,—and not yet conscious of how little it knows. And so it is with this dream of antique races, and an extinct civilization coeval with the Pharaohs, or Solomon, the Norse Thorfinn, the Welsh Madoc, or any other impersonation that seems like a tangible reality of the past.

But, after all, perhaps the most interesting aspect in which the view this persistent tendency to counterfeit antiques, and palm off on the American of the nineteenth century, Punic, Hebrew, Runic, and primeval inscriptions of all sorts, is its manifest reproduction among the young communities of the New World of that very same phase of uncritical but zealous devotion to archaic research, which, a century ago in the Mother Country, heralded the development of sound historical and literary criticism, with all the valuable fruits which have resulted from it.

## CANADIAN LOCAL HISTORY.

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[The following "Collections and Recollections" were not designed for the pages of the *Canadian Journal*; but a desire having been expressed in several quarters that they should appear there, ("reserving all rights," as the English publishing phrase is, we insert them); still fearing that the matters which form their staple will be deemed scarcely worthy of so notable a record. Their perusal, however, may have the effect of suggesting to some of our readers the propriety—the prudence, even—of entrusting to the care of the Editing Committee documents more valuable, that may be in their possession, and narratives of more force, of which they are the depositories, illustrative of the early history of the country, displaying traits in the character of individual worthies, or affording glimpses of society in different localities, while yet our settlements were in their infancy. In that case we shall not regret the publication in these pages of our own trivial notes and reminiscences, as it may lead to the setting apart, permanently, of a few pages in each number of the *Journal* for the reception and preservation of much peculiar matter which, to the historical investigator hereafter, will be of interest, and occasionally of importance.—ED. CAN. JOUR.]

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### TORONTO OF OLD:

A SERIES OF COLLECTIONS AND RECOLLECTIONS.

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BY THE REV. DR. SCADDING.

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#### I.—PALACE STREET TO THE MARKET-PLACE

In Rome, at the present day, the parts that are the most attractive to the tourist of archaeological tastes, are those that are the most desolate; those that, apart from their associations, are the most uninviting. It is the same with many another venerable town of the world beyond the Atlantic, of far less note than the old Imperial capital; with Avignon, for example, with Nismes, and Vicne, in France; with Paris itself, also, to some extent; with Chester, and York, and St. Albans, the Verulam of the Roman period, in England. It is the same with our American towns, wherever any relics of their brief past are extant. Detroit, we remember, had once a quaint, dilapidated, primæval quarter. It is the same with our own Toronto. He that would examine the vestiges of the original settlement, out of which the actual town has grown, must betake himself in the first instance, to localities deserted now by the footsteps of fashion, and be content to contemplate objects that, to the indifferent eye, will seem commonplace and insignificant. To invest such places and things with any degree of interest will appear difficult. An attempt in that direction may even be pronounced visionary. Nevertheless it is a duty which we owe to our forefathers to take what note we can of the labours of their hands; to forbid, so far as we may, the utter oblivion of their early efforts, and deeds, and sayings, the outcome of their ideas, of their humours and anxieties; to forbid even, so far as we may, the utter oblivion of the form and fashion of their persons. The excavations which they made in the construction of their dwellings, and in their engineering operations, civil and military, were neither deep nor extensive; the materials which they employed were, for the most part, soft and perishable. In a few years all the original edifices of York, the infant Toronto, together with all the primitive dwellings and cuttings, will, of necessity, have vanished. Natural decay



will have destroyed some. Winds, fires and floods will have removed others. The rest will be deliberately taken out of the way, or obliterated in the execution of modern improvements, the obsolete and fragile giving way before the commodious and more enduring. At St. Petersburg, we believe, the original log-hut of Peter the Great is preserved to the present day in a casing of stone, with a kind of religious reverence. And in Rome of old, through the influence of a similar sacred regard for the past, the lowly cottage of Romulus was long protected in a similar manner. There are probably no material relics of our founders and forefathers which we should care to invest with a like forced and artificial permanence. But the memory of those relics, and of such associations as may here and there be found to cluster around them, we may think it worth our while to collect and cherish.

Overlooking the harbour, far down in the east, there stands, at the present day, a large structure of gray cut-stone. Its radiating wings, the turret placed at a central point aloft, evidently for the ready oversight of the surrounding premises; the unornamented blank walls, pierced high up in each storey with a row of circular-headed openings, suggestive of shadowy corridors and cells within, all help to give to this pile an unmistakeable prison-aspect.

It was very nearly on the site of this rather hard-featured building that the first Houses of Parliament of Upper Canada were placed—humble but commodious structures of wood, built before the close of the eighteenth century, and destroyed by the incendiary torch of the invader in 1813. "They consisted," as a public letter addressed by the Rev. Dr. Strachan to ex-President Jefferson sets forth, "of two elegant Halls, with convenient offices, for the accommodation of the Legislature and of the Courts of Justice."—"The library and all the papers and records belonging to these institutions were consumed"—the same document continues—"and, at the same time, the Church was robbed, and the Town Library totally pillaged."—The injuries thus inflicted were a few months afterwards avenged by the destruction of the Public Buildings at Washington, by a British force. "We consider"—says an Address of the Legislative Council of Lower Canada to Sir George Provost in 1815—"we consider the destruction of the Public Buildings at Washington as a just retribution for the outrages committed by an American force at the Seat of Government of Upper Canada."

On the same site, succeeded the more conspicuous and more capacious, but still plain and simply cubical brick block erected for Legislative purposes in 1818, and accidentally burned in 1824. The conflagration on this occasion entailed a loss of £2,000, which the *Canadian Review* of the period, published at Montreal, observes, "in the present state of the finances and debt of the Province, cannot be considered as a trifling affair." The buildings were not insured. Because they were isolated, and their external walls of incombustible material, it was imagined that the risk from fire was small, overlooking the numerous chances of ignition from within.

It was manifestly expected that hereabout was to be the Westminster of the new capital. It is not improbable that the position at the head, rather than at the entrance of the harbour, was considered eligible as being at once commanding and secure. The appearance of the spot in its primumval condition was doubtless more prepossessing than we can now conceive it ever to have been. Fine groves of forest trees may have given it a sheltered look, and, at the same time, have screened off from the view the adjoining swamps. The language of the early *Provincial Gazetteer*, published by authority, is as follows: "The Don empties itself into the harbour a little above the Town, running through a marsh, which, when drained, will afford most beautiful and fruitful meadows." In the early Plans, the same sanguine opinion is recorded, in regard to the morasses in this locality. On one, of 1810, now before us, we have the inscription: "Natural Meadow which may be mown." On another the legend runs "Large Marsh, and will in time make good Meadows." On a third it is "Large Marsh, and Good Grass."—At all events, hereabout it was that York, capital of Upper Canada, began to rise. To the west and north of the site of the Houses of Parliament, the officials of the Government, with merchants and tradesmen, in the usual variety, began to select lots and put up convenient dwellings; whilst close by, at Berkeley Street, or Parliament Street as the southern portion of Berkeley Street was then named, the chief thoroughfare of the Town had its commencing-point. Growing slowly westward from here, King Street developed in its course, in the customary American way, its hotel, its tavern, its boarding-house, its waggon factory, its tin-smith's shop, its bakery, its general stores, its lawyer's offices, its printing office, its places of worship.

Eastward of Berkeley Street, King Street became the Kingston Road, trending slightly to the north, and then proceeding in a straight line to a bridge over the Don. This divergency in the highway caused a number of the lots adjacent on the northern side to be awkwardly bounded at their southern ends by lines that formed, with the sides, alternately obtuse and acute angles, productive of corresponding inconveniences in the shape of buildings afterwards erected, and in the position of some of them, which appeared as if they had disagreed and separated at minute angles, or been jostled slightly out of place by an earthquake-shock.

At the Bridge, the lower Kingston Road, if produced westward in a right line, would have been Queen Street, or Lot Street, as that route would have been named, from the Park-lots projected at an early period on its northern side, had it been deemed proper to clear a passage in that direction through the forest. But some way westward on this line, a ravine was encountered lengthwise, which was held to present great engineering difficulties. A road cut diagonally from the Bridge to the opening of King Street at once avoided this natural impediment, and also led to a point where an easy connection was made with the track for wheels that ran along the shore of the harbour to the Garrison. But for the ravine referred to, which now appears to the south of Moss Park, Lot Street, or, which is the same thing, Queen Street, would at an early period have begun to dispute with King Street its claim to be the chief thoroughfare of York.

But to come back to our original unpromising stand-point. Objectionable as the first site of the Legislative Buildings at York may appear to ourselves, and alienated as it now is to lower uses, we cannot but gaze upon it with a certain degree of emotion when we remember that here it was that the first skirmishes took place in the great war of principles which afterwards with such determination and effect was fought out in Canada. Here it was that first loomed up before the minds of our early lawmakers the ecclesiastical question, the educational question, the constitutional question. Here it was that first was heard the open discussion, infantile, indeed, and vague, but pregnant with very weighty results, of topics, social and national, which, at the time, even in the parent state itself, were mastered but by few. Here it was, during a period of twenty-seven years (1797-1824), at each opening and closing of the annual session, amidst the firing of cannon and the commotion of a crowd, the cavalcade drew up that is wont, from the banks of the Thames to the remotest colony of England, to mark the solemn progress of the sovereign or the sovereign's representative, to and from the other Estates assembled in Parliament. Here, amidst such fitting surroundings of state, as the circumstances of the times and the place admitted, came and went personages of eminence, whose names are now familiar in Canadian story: never, indeed, the founder and organizer of Upper Canada, Governor Simcoe himself, in this formal and ceremonious manner; although often must he have visited the spot otherwise, in his personal examinations of every portion of his young capital and its environs. Here, immediately after him, came and went repeatedly, in due succession, President Russell, Governor Hunter, Governor Gore, General Brock, General Sheaffe, Sir Gordon Drummond, Sir Peregrine Maitland. And, while contemplating the scene of our earliest political conflicts; the scene of our earliest known state pageants in these parts, with their modest appliances and accommodations, our minds intuitively recur to a period farther removed still, when under more primitive conditions the Parliament of Upper Canada assembled at Newark, across the Lake. We picture to ourselves the group of seven crown-appointed Councillors and five representatives of the commons, assembled there, with the first Speaker, McDonnell of Glengarry; all plain, unassuming, prosaic men, listening, at their first session, to the opening speech of their frank and honoured Governor. We see them adjourning to the open air from their straitened chamber at Navy Hill, and conducting the business of the young Province under the shade of a spreading tree, introducing the English Code and Trial by Jury, decreeing Roads, and prohibiting the spread of Slavery; while a boulder of the drift, lifting itself through the natural turf, serves as a desk for the recording clerk. Below them, in the magnificent estuary of the river Niagara, the waters of all the Upper Lakes are swirling by, not yet recovered from the agonies of the long gorge above, and the leap at Table Rock.—Even here, at the opening and close of this primal Legislature, some of the decent ceremonial was observed with which, as we have seen, the sadly-inferior site of the west bank of the river Don became afterwards familiar. We learn this from the narrative of the French duke de Liancourt, who affords us

a glimpse of the scene at Newark on the occasion of a Parliament there in 1795. "The whole retinue of the Governor," he says, "consisted in a guard of fifty men of the garrison of the fort. Draped in silk, he entered the Hall with his hat on his head, attended by his adjutant and two secretaries. The two members of the Legislative Council gave, by their speaker, notice of it to the Assembly. Five members of the latter having appeared at the bar, the Governor delivered a speech, modelled after that of the King, on the political affairs of Europe, on the treaty concluded with the United States [the treaty of 1794], which he mentioned in expressions very favourable to the Union; and on the peculiar concerns of Canada" (Travels, i. 258). By the Quebec Act, passed in 1791, it was enacted that the Legislative Council for Upper Canada should consist of not fewer than seven members, and the Assembly of not less than sixteen members, who were to be called together at least once in every year. To account for the smallness of the attendance on the occasion just described, the duke explains that the Governor had deferred the session "on account of the expected arrival of a Chief Justice, who was to come from England; and from a hope that he should be able to acquaint the members with the particulars of the Treaty with the United States. But the harvest had now begun, which, in a higher degree than elsewhere, engages in Canada the public attention, far beyond what state affairs can do. Two members of the Legislative Council were present, instead of seven; no Chief Justice appeared, who was to act as Speaker; instead of sixteen members of the Assembly, five only attended; and this was the whole number that could be collected at this time. The law required a greater number of members for each house, to discuss and determine upon any business; but within two days a year would have expired since the last session. The Governor, therefore, thought it right to open the session, reserving, however, to either house the right of proroguing the sitting, from one day to another, in expectation that the ships from Detroit and Kingston would either bring the members who were yet wanting, or certain intelligence of their not being able to attend."

But again to return to the Houses of Parliament at York.—Extending from the Grounds which surrounded the Buildings, in the east, all the way to the fort at the entrance of the harbour, in the west, there was a succession of fine forest trees, especially oaks; underneath and by the side of which the upper surface of the precipitous but nowhere very elevated cliff was carpeted with thick green-sward, such as is still to be seen between the old and new Garrisons, or at Mississauga Point at Niagara. A fragment, happily preserved, of the ancient bank, is to be seen in the ornamental piece of ground known as the Fair-green; a strip of land first protected by a fence and planted with shrubbery at the instance of Mr. George Monro, when Mayor, who also, in front of his property some distance further on, long guarded from harm a solitary survivor of the primeval grove that once fringed the harbour.

On our first visit to Southampton, many years ago, we remember observing a resemblance between the walk to the river Itchen, shaded by trees and commanding a wide water-view on the south, and the margin of the harbour of York.

In the interval between the points where now Princes Street and Caroline Street descend to the water's edge, was a favorite landing-place for the small craft of the bay—a wide and clean gravelly beach, with a convenient ascent to the cliff above. Here on fine mornings, at the proper seasons, skiffs and canoes, log and birch-bark, were to be seen putting in, weighed heavily down with fish, speared or otherwise taken during the preceding night, in the lake, bay, or neighboring river. Occasionally a huge sturgeon would be landed, one struggle of which might suffice to upset a small boat. Here were to be purchased, in quantities, salmon, pickerell, masquelongue, whitefish and herrings; with the smaller fry of perch, bass and sunfish. Here, too, would be displayed unsightly catfish, suckers, lampreys, and other eels; and sometimes lizards, young alligators for size. Specimens, also, of the curious steel-clad, inflexible, vicious-looking pipe-fish were not uncommon. About the submerged timbers of the wharves this creature was often to be seen,—at one moment stationary and still, like the dragon-fly, or humming-bird poised on the wing, then, like those nervous denizens of the air, giving a sudden dart off to the right or left, without curving its body.

Across the bay, from this landing-place, a little to the eastward, was the narrowest part of the peninsula, a neck of sand destitute of trees, known as the portage or carrying-place where canoes and small boats were quickly passed to and from the lake.

Along the bank, above the landing-place, Indian encampments were occasionally set up. Here, in comfortless wigwams, we have seen Dr. Lee, a medical man attached to the Indian department, administering from an ordinary tin cup nauseous but salutary draughts to sick and convalescent squaws. It was the duty of Dr. Lee to visit Indian settlements and prescribe for the sick. In the discharge of this duty he performed long journeys, on horseback, to Penetanguishene and other distant posts, carrying with him his drugs and apparatus in saddle-bags. When advanced in years, and somewhat disabled in regard to activity of movement, Dr. Lee was attached to the Parliamentary staff as Usher of the Black Rod.—The locality at which we are glancing suggests the name of another never-to-be-forgotten medical man, whose home and property were close at hand. This is the eminent surgeon and physician, Christopher Widmer. It is to be regretted that Dr. Widmer left behind him no written memorials of his long and varied experience. Before his settlement in York, he had been a staff cavalry surgeon, on active service during the campaigns in the Peninsula. A personal narrative of his public life would have been full of interest. But his ambition was content with the homage of his contemporaries, rich and poor, rendered with sincerity to his pre-eminent abilities and inextinguishable zeal as a surgeon and physician. Long after his retirement from general practice, he was every day to be seen passing to and from the old Hospital on King Street, conveyed in his well-known cabriolet, and guiding with his own hand the reins conducted in through the front window of the vehicle. He had now attained a great age; but his slender form continued erect; the hat was worn jauntily, as in other days, and the dress was ever scrupulously exact; the expression of the face in repose was somewhat abstracted and sad, but a quick smile appeared at the recognition of friends. The ordinary engravings of Harvey, the discoverer of the circulation of the blood, recall in some degree the countenance of Dr. Widmer. Within the General Hospital, a portrait of him is appropriately preserved. One of the earliest, and at the same time one of the most graceful lady-equestrians ever seen in York was this gentleman's accomplished wife. At a later period a sister of Mr. Justice Willis was also conspicuous as a skilful and fearless horsewoman. The description in the Percy Anecdotes of the Princess Amelia, youngest daughter of George II., is curiously applicable to the last-named lady, who united to the amiable peculiarities indicated, talents and virtues of the highest order. "She," the brothers Skolto and Reuben say, "was of a masculine turn of mind, and evinced this strikingly enough in her dress and manners: she generally wore a riding-habit in the German fashion with a round hat; and delighted very much in attending her stables, particularly when any of the horses were out of order." At a phenomenon such as this, suddenly appearing in their midst, the staid and simple-minded society of York stood for a while aghast.

At the south-west corner of Princes Street, near where we are now supposing ourselves to be, was a building popularly known as Russell Abbey. It was the house of the Hon. Peter Russell, and, after his decease, of his maiden sister, Miss Elizabeth Russell, a lady of great refinement, who survived her brother many years. The edifice, like most of the early homes of York, was of one storey only; but it exhibited in its design a degree of elegance and some peculiarities. To a central building were attached wings with gables to the south: the windows had each an architectural decoration or pediment over it. It was this feature, we believe, that was supposed to give to the place something of a monastic air; to entitle it even to the name of "Abbey." In front, a dwarf stone wall with a light wooden paling surrounded a lawn, on which grew tall acacias or locusts. Mr. Russell was a scion of the Bedford Russells. He apparently desired to lay the foundation of a solid landed estate in Upper Canada. His position as Administrator, on the departure of the first Governor of the Province, gave him facilities for the selection and acquisition of wild lands. The duality necessarily assumed in the working of the Patents by which the Administrator made grants to himself, seems to have been regarded by some as having a touch of the comic in it. Hence among the early people of these parts the name of Peter Russell was occasionally to be heard quoted good-humouredly, not malignantly, as an example of "the man who would do well unto himself."—On the death of Mr. Russell his property passed into the hands of his sister, who bequeathed the whole to Dr. William Warren Baldwin, into whose possession also came the valuable family plate, elaborately embossed with the armorial bearings of the Russells. Russell Hill, long the residence of Admiral Augustus Baldwin, had its name from Mr. Russell; and in one of the elder branches of the Baldwin family, Russell

is continued as a baptismal name. In the same family is also preserved an interesting portrait of Mr. Peter Russell himself, from which we can see that he was a gentleman of portly presence, of strongly marked features, of the Thomas Jefferson type.

Russell Abbey became afterwards the residence of Bishop Macdonell, a universally-respected Scottish Roman Catholic ecclesiastic, whose episcopal title was at first derived from *Rhesina in partibus*, but afterwards from our Canadian Kingston, where his home usually was. His civil duties, as a member of the Legislative Council of Upper Canada, required his presence in York during the Parliamentary sessions.—It used to be supposed by some that the occupancy of Russell Abbey by the Bishop caused the portion of Front Street which lies eastward of the Market-Place to be denominated Palace Street. But the name appears in plans of York of a date many years anterior to that occupancy. In connection with this mention of Bishop McDonell, it may be of some interest to add that, in 1826, Thomas Weld, of Lulworth Castle, Dorsetshire, was consecrated as his coadjutor, in England, under the title of Bishop of Amlæ. But it does not appear that he ever came out to Canada. (This was afterwards the well-known English Cardinal. He had been a layman, and married, up to the year 1825; when, on the death of his wife, he took orders; and in one year he was, as just stated, a Bishop.) Russell Abbey may indeed have been styled the "Palace"; but it was probably from being the residence of one who for three years administered the Government; or the name "Palace Street" itself may have suggested the appellation. "Palace Street" was no doubt intended to indicate the fact that it led directly to the Government reservation at the end of the Town on which the Parliament Houses were erected, and where it was supposed the "Palais du Gouvernement," the official residence of the representative of the sovereign in the Province, would eventually be. On an Official Plan of this region, of the year 1810, the Parliament Buildings themselves are styled "Government House."

At the laying-out of York, however, we find, from the plans, that the name given in the first instance to the Front street of the town was, not Palace Street, but King Street. Modern King Street was then Duke Street, and modern Duke Street, Duchess Street. These street names were intended as loyal compliments to members of the reigning family; to George the Third; to his son the popular Duke of York, from whom, as we shall learn hereafter, the town itself was named; to the Duchess of York, the eldest daughter of the King of Prussia. In the cross streets the same chivalrous devotion to the Hanoverian dynasty was exhibited. George Street, the boundary westward of the first nucleus of York, bore the name of the heir-apparent, George, Prince of Wales. The next street eastward was honoured with the name of his next brother, Frederic, the Duke of York himself. And the succeeding street eastward, Caroline Street, had imposed upon it that of the Princess of Wales, afterwards so unhappily famous as George the Fourth's Queen Caroline. Whilst in Princess Street (for such is the correct orthography, as the old plans shew, and not Princess Street, as is generally seen now,) the rest of the male members of the royal family were collectively commemorated, namely, the Duke of Clarence, the Duke of Kent, the Duke of Cumberland, the Duke of Sussex, and the Duke of Cambridge.

When the Canadian town of York was first projected, the marriage of the Duke of York with the daughter of the King of Prussia, Frederica Charlotta Ulrica, had only recently been celebrated at Berlin. It was considered at the time an event of importance, and the ceremonies on the occasion are given with some minuteness in the Annual Register for 1791. We are there informed that "the supper was served at six tables; that the first was placed under a canopy of crimson velvet, and the victuals [as the record terms them] served on gold dishes and plates; that Lieutenant-General Bornstedt and Count Bruhl had the honour to carve, without being seated; that the other five tables, at which sat the generals, ministers, ambassadors, all the officers of the court, and the high nobility, were served in other apartments; that supper being over, the whole assembly repaired to the White Hall, where the trumpet, timbrel, and other music, were playing; that the flambeau-dance was then began, at which the ministers of state carried the torches; that the new couple were attended to their apartment by the reigning Queen and the Queen dowager; that the Duke of York wore on this day the English uniform, and the Princess Frederica a suit of *drap d'argent*, ornamented with diamonds." In Ashburton's "New and Complete History of England, from the first settlement of Brutus, upwards of

one thousand years before Julius Cæsar, to the year 1793," now lying before us, two full-length portraits of the Duke and Duchess are given.—New York and Albany, in the adjoining State, had their names from titles of a Duke of York in 1664, afterwards James II. His brother Charles II., made him a present, by Letters Patent, of all the territory, from the western side of the Connecticut river to the east side of Delaware bay; that is, of the present States of Connecticut, New-York, Delaware and New-Jersey.

On the green-sward of the bank between Princes Street and George Street, the annual military "Trainings" on the Fourth of June, "the old King's birthday," were wont to take place. At a later period the day of meeting was the 23rd of April, St. George's Day, the fête of George IV. Military displays on a grand scale in and about Toronto have not been uncommon in modern times, exciting the enthusiasm of the multitude that usually assembles on such occasions. But in no way inferior in point of interest to the unsophisticated youthful eye, half a century ago unaccustomed to anything more elaborate, were these motley musterings of the militia companies. The costume of the men may have been various, the fire-arms only partially distributed and those that were to be had not of the brightest hue, nor of the most scientific make; the lines may not always have been perfectly straight, nor their constituents well matched in height; the obedience to the word of command may not have been rendered with the mechanical precision which we admire at reviews now, nor with that total suppression of dialogue in undertone in the ranks, nor with that absence of remark interchanged between the men and their officers, that are customary now. Nevertheless, as a military spectacle, these gatherings and manœuvres on the grassy bank here, were effective: they were always anticipated with pleasure and contemplated with satisfaction. The officers on these occasions—some of them mounted—were arrayed in uniforms of antique cut; in red coats with wide black breast lappets and broad tail flaps; high collars, tight sleeves and large cuffs; on the head a black hat, the ordinary high-crowned civilian hat, with a cylindrical feather some eighteen inches high inserted at the top, not in front, but on one side (whalebone surrounded with feathers from the barnyard, scarlet at base, white above). Animation was added to the scene by a drum and a few fifes executing with liveliness "The York Quickstep," "The Reconciliation," and "The British Grenadiers." And then, in addition to the local cavalry corps, there were the clattering scabbards, the blue jackets, and bear-skin helmets of Captain Button's dragoons from Markham and Whitchurch.

In the rank and file at these musterings—as well as numerously among the officers, commissioned and non-commissioned—were to be seen men who had quite recently jeopardized their lives in the defence of the country. At the period we are speaking of, only some six or seven years had elapsed since an invasion of Canada from the south. "The late war" for a long while, very naturally, formed a fixed point in local chronology, from which times and seasons were calculated; a fixed point, however, which, to the indifferent new-comer, and even to those who, when "the late war" was in progress, were not in bodily existence, seemed already a thing of a remote past. An impression of the miseries of war, derived from the talk of those who had actually felt them, was very strong in the minds of the rising generation; an impression accompanied also at the same time with the uncomfortable conviction, derived from the same source, that another conflict was inevitable in due time. The musterings on "Training-day" were thus invested with interest and importance in the minds of those who were summoned to appear on these occasions, as also in the minds of the boyish looker-on, who was aware that ere long he would himself be required by law to turn out and take his part in the annual militia evolutions, and perhaps afterwards, possibly at no distant hour, to handle the musket or wield the sword in earnest.

A little further on, in a house at the north west corner of Frederick Street, a building afterwards utterly destroyed by fire, was born, in 1804, the Hon. Robert Baldwin, son of Dr. William Warren Baldwin, already referred to, and Attorney-General in 1842 for Upper Canada. In the same building, at a later period, (and previously in an humble edifice at the north-west corner of King Street and Caroline Street, now likewise wholly destroyed,) the foundation was laid, by well-directed and far-sighted ventures in commerce, of the great wealth (locally proverbial) of the Cawthra family, the Astors of Upper Canada. It was also in the same house, prior to its occupation by Mr. Cawthra, senior, that the printing operations of Mr. William Lyon McKenzie were carried on at the time of the destruction of his press by a party of young men, who con-

sidered it proper to take some spirited notice of the criticisms on the public acts of their fathers, uncles and superiors generally, that appeared every week in the columns of the *Colonial Advocate*; a violent act memorable in the annals of Western Canada, not simply as having been the means of establishing the fortunes of an indefatigable and powerful journalist, but more notably as presenting an unconscious illustration of a general law, observable in the early development of communities, whereby an element destined to elevate and regenerate is, on its first introduction, resisted, and sought to be crushed physically, not morally; somewhat as the white man's watch was dashed to pieces by the Indian, as though it had been a sentient thing, conspiring in some mysterious way with other things, to promote the ascendancy of the stranger. The youthful perpetrators of the violence referred to were not long in learning practically the futility of such exploits. Good old Mr. James Baby, on handing to his son Raymond the amount which that youth was required to pay as his share of the heavy damages awarded, as a matter of course, by the jury on the occasion, is said to have added:—"There I go and make one great fool of yourself again!"—a sarcastic piece of advice that might have been offered to each of the parties concerned.—A few steps northward, on the east side of Frederick Street, was the first Post Office, on the premises of Mr. Allan, who was postmaster; and southward, where this street touches the water, was the Merchants' Wharf, also the property of Mr. Allan; and the Custom House, where Mr. Allan was the Collector. In an early, limited condition of society, a man of more than the ordinary aptitude for affairs is required to act in many capacities. The Merchants' Wharf was the earliest landing-place for the larger craft of the lake. At a later period other wharves or long wooden jetties, extending out into deep water, one of them named the Farmers' Wharf, were built westward. In the shoal water between the several wharves, for a long period, there was annually a dense crop of rushes or flags. The Town or County authorities incurred considerable expense, year after year, in endeavouring to eradicate them—but, like the heads of the hydra, they were always re-appearing. In July, 1821, a "Mr. Coles' account for his assistants' labour in destroying rushes in front of the Market Square" was laid before the County magistrates, and audited, amounting to £13 6s. 3d. In August of the same year, the minutes of the County Court record that "Capt. Macaulay, Royal Engineers, offered to cut down the rushes in front of the Town between the Merchants' Wharf and Coopers' Wharf, for a sum not to exceed ninety dollars, which would merely be the expense of the men and materials in executing the undertaking; his own time he would give to the public on this occasion, as encouragement to others to endeavour to destroy the rushes when they become a nuisance:" it was accordingly ordered "that ninety dollars be paid to Capt. Macaulay or his order, for the purpose of cutting down the rushes, according to his verbal undertaking to cut down the same, to be paid out of the Police or District funds in the hands of the Treasurer of the District." We have understood that Capt. Macaulay's measures for the extinction of the rank vegetation in the shallow waters of the harbour, proved to be very efficient. The instrument used was a kind of screw grapnel, which, let down from the side of a large scow, laid hold of the rushes at their root and forcibly wrenched them out of the bed of mud below. The entire plant was thus lifted up, and drawn by a windlass into the scow. When a full load of the aquatic weed was collected, it was taken out into the open water of the Lake, and there disposed of.

Passing on our way, we soon came to the Market Square. This was a large open space, with wooden shambles in the middle of it, thirty-six feet long and twenty-four wide, running north and south. In 1824, the square was, by the direction of the County magistrates, closed in on the east, west, and south sides, "with a picketting and oak ribbon, the pickets at ten feet distance from each other, with three openings or foot-paths on each side." The digging of a public well here, in the direction of King Street, was an event of considerable interest in the town. Groups of school-boys every day scanned narrowly the progress of the undertaking; a cap of one or the other of them, mischievously precipitated to the depths where the labourers' mattocks were to be heard pecking at the shale below, may have impressed the execution of this public work all the more indelibly on the recollection of some of them. By referring to a volume of the *Upper Canada Gazette* we find that this was in 1823. An unofficial advertisement in that periodical, dated June the 9th, 1823, calls for proposals to be sent in to the office of the Clerk of the Peace, "for the sinking a well, stoning and sinking a pump therein, in the most approved manner, at the Market Square of the said town [of York], for the convenience of the

Public." It is added that persons desirous of contracting for the same, must give in their proposals on or before Tuesday, the first day of July next ensuing; and the signature, "by the order of the Court," is that of "S. Heward, Clerk of the Peace, H. D." [Home District.] The tender of John Hutchison and George Hetherington was accepted. They offered to do the work "for the sum of £25 currency on coming to the rock, with the addition of seven shillings and sixpence per foot for boring into the rock until a sufficient supply of water can be got, should it be required." The work was done and the account paid July 30th, 1823. The charge for boring eight feet two inches through the rock was £3 1s. 3d. The whole well and pump thus cost the County the modest sum of only £28 1s. 3d. The charge for flagging round the pump, for "logs, stone and workmanship," was £5 2s. 4½d., paid to Mr. Hugh Carfrae, path-master. Near the public Pump, auctions in the open air occasionally took place. A humorous chapman in that line, Mr. Patrick McGann, used often here to be seen and heard, disposing of his miscellaneous wares. And here we once witnessed the horrible exhibition of a public whipping, in the case of two culprits whose offence is forgotten. A discharged regimental drummer, a native African, administered the lash. The sheriff stood by, keeping count of the stripes. The senior of the two unfortunates bore his punishment with stoicism, encouraging the negro to strike with more force. The other, a young man, endeavoured for a little while to imitate his companion in this respect; but soon was obliged to evince by fearful cries the torture endured. Similar scenes were elsewhere to be witnessed in Canada. In the *Montreal Herald* of September 16th, 1815, we have the following item of city news, given without comment: "Yesterday, between the hours of 9 and 10, pursuant to their sentences, André Latulippe, Henry Leopard, and John Quin, received 30 lashes each, in the New Market Place."

In the Market Square at York, the pillory and the stocks were also from time to time set up. The latter were seen in use for the last time in 1834. In 1804, a certain Elizabeth Ellis was, for "being a nuisance," sentenced by Judge Alcock to be imprisoned for six months, and "to stand in the pillory twice during the said imprisonment, on two different market days, opposite the Market House in the town of York, for the space of two hours each time." In the same year, the same sentence was passed on one Campbell, for using "seditious words." In 1831 the wooden shambles were removed, and replaced in 1833 by a collegiate-looking building of red brick, quadrangular in its arrangement, with arched gateway-entrances on King Street and Front Street. This edifice filled the whole square, with the exception of roadways on the east and west sides. The public well was now concealed from view. It doubtless exists still, to be discovered and grieved over by the antiquarian of another century. Round the four sides of the new brick Market ran a wooden gallery, which served to shade the butchers' stalls below. It was here that a fearful casualty occurred in 1834. A concourse of people were being addressed after the adjournment of a meeting on an electoral question, when a portion of the overcrowded gallery fell, and several persons were caught on the sharp iron hooks of the stalls underneath, and so received fatal injuries. The damage done to the northern end of the quadrangle during the great fire in 1849 led to the demolition of the whole, and the erection of St. Lawrence Hall and Market. Over windows on the second storey at the south-east corner of the red brick structure now removed, there appeared, for several years, two signs, united at the angle of the building, each indicating by its inscription the place of "The Huron and Ontario Railway" office. This was while the Northern Railway of Canada was yet existing simply as a project. In connection with our notice of the Market, we subjoin the prices agreed upon by the magistrates, in Quarter Sessions assembled, as in their opinion fair and equitable to be paid by the military authorities for provisions, during the war in 1814:—Flour, per barrel, £3 10s. Wheat, per bushel, 10s. Pease, per bushel, 7s. 6a. Barley and Rye, the same. Oats, per bushel, 5s. Hay, per ton, £5. Straw, £3. Beef, on foot, per cwt., £2 5s; slaughtered, per lb., 7½d. Pork, salted, per barrel, £7 10s.; per carcass, 7½d. Mutton, per lb., 9d. Veal, 8d. Butter, 1s. 3d. Bread, per loaf of 4 lbs., 1s. 6d. In April, 1822, peace then reigning, York prices were:—Beef, per lb., 2d. a 4d. Mutton, 4d. a 5d. Veal, 4d. a 5d. Pork, 2d. a 2½d. Fowls, per pair, 1s. 3d. Turkeys, each, 3s. 9d. Geese, 2s. 6d. Ducks, per pair, 1s. 10d. Cheese, per lb., 5d. Butter, 7½d. Eggs, per doz., 5d. Wheat, per bushel, 2s. 6d. Barley, 48 lbs., 2s. Oats, 1s. Pease 1s. 1½d. Potatoes, per bushel, 1s. 3d. Turnips, 1s. Cabbages, per head, 2d. Flour, per cwt., 6s. 3d. Flour, per barrel, 12s. 6d. Tallow, per lb., 5d. Lard, per lb., 5d. Hay, per ton, £2 10s. Pork, per barrel, £2 10s. Wood, per cord, 10s.



## II.—FRONT STREET, FROM THE MARKET-PLACE TO BROCK STREET.

The corner which we approach after passing the Market-square, was occupied by an inn with a sign-board sustained on a high post inserted at the outer edge of the foot-path, in country roadside fashion. This was Hamilton's, or the White Swan. It was here, we believe, or in an adjoining house, that a travelling citizen of the United States, in possession of a collection of stuffed birds and similar objects, endeavoured at an early period to establish a kind of Natural History Museum. Just beyond was the Steamboat Hotel, remarkable for the spirited delineation of a steam-packet of vast dimensions, extending the whole length of the building, just over the upper verandah of the hotel. A little further on was the Ontario House, a hotel built in a style common then at the Falls of Niagara and in the United States. A row of lofty pillars, well-grown pines in fact, stripped and smoothly planed, reached from the ground to the eaves, and supported two tiers of galleries, which, running behind the columns, did not interrupt their vertical lines. Close by the Ontario House, Market Street from the west entered Front Street at an acute angle. In the gore between the two streets, a building sprang up, which, in conforming to its site, assumed the shape of a coffin. The foot of this ominous structure was the office where travellers booked themselves for various parts in the stages that from time to time started from York. It took four days to reach Niagara in 1816. We are informed by a contemporary advertisement now before us, that "on the 20th of September next [1816], a stage will commence running between York and Niagara: it will leave York every Monday, and arrive at Niagara on Thursdays; and leave Queenston every Friday. The baggage is to be considered at the risk of the owner, and the fare to be paid in advance." In 1824, the mails were conveyed the same distance, *via* Ancaster, in three days. In a post-office advertisement for tenders, signed "William Allan, P.M.," we have the statement: "The mails are made up here [York] on the afternoon of Monday and Thursday, and must be delivered at Niagara on the Wednesday and Saturday following; and within the same period in returning." In 1835, Mr. William Weller was the proprietor of a line of stages between Toronto and Hamilton, known as the "Telegraph Line." In an advertisement before us, he engages to take passengers "through by daylight, on the Lake Road, during the winter season." Communication with England was at this period a tedious process. So late as 1836, Mrs. Jameson thus writes in her Journal at Toronto (i. 182): "It is now seven weeks since the date of the last letters from my dear far-distant home. The Archdeacon," she adds, "told me, by way of comfort, that when he came to settle in this country, there was only one mail-post from England in the course of a whole year, and it was called, as if in mockery, the Express." To this "Express" we have a reference in a post-office advertisement to be seen in a *Quebec Gazette* of 1792: "A mail for the Upper Countries, comprehending Niagara and Detroit, will be closed," it says, "at this office, on Monday, the 30th inst., at 4 o'clock in the evening, to be forwarded from Montreal by the annual winter Express, on Thursday, the 3rd of Feb. next." From the same paper we learn that on the 10th of November, the latest date from Philadelphia and New-York was Oct. 8th: also, that a weekly conveyance had lately been established between Montreal and Burlington, Vermont. Compare all this with advertisements in Toronto daily papers now, from agencies in the town, of "Through Lines" weekly, to California, Vancouver's, China and Japan, connecting with Lines to Australia and New Zealand.

On the beach below the Steamboat Hotel was, at a late period, a market for the sale of fish. It was from this spot that Bartlett, in his "Canadian Scenery," made one of the sketches intended to convey to the English eye an impression of the town. In the foreground are groups of conventional, and altogether too picturesque, fishwives and squaws: in the distance is the junction of Hospital Street and Front Street, with the tapering building between. On the right are the galleries of what had been the Steamboat Hotel: it here bears another name. Bartlett's second sketch is from the end of a long wharf or jetty to the west. The large building in front, with a covered passage through it for vehicles, is the warehouse or freight depot of Mr. William Cooper, long the owner of this favourite landing-place. Westwards, the pillared front of the Ontario House is to be seen. Both of these views already look quaint, and possess a value as preserving a shadow of much that no longer exists.

Where Mr. Cooper's wharf joined the shore there was a ship-building yard. We have a recollection of a launch that strangely took place here on a Sunday. An attempt to get the ship into

the water on the preceding day had failed. Delay would have occasioned an awkward settling of the ponderous mass. We shall have occasion hereafter to speak of the early shipping of the harbour. The lot extending northward from the Ontario House corner to King Street was the property of Attorney-General Macdonnell, who, while in attendance on General Brock as Provincial aide-de-camp, was slain in the engagement on Queenston Heights. His death created the vacancy to which, at an unusually early age, succeeded Mr. John Beverley Robinson, afterwards the distinguished Chief Justice of Upper Canada. Mr. Macdonnell's remains are deposited with those of his military chief under the column on Queenston Heights. He bequeathed the property to which our attention has been directed, to a youthful nephew, on certain conditions, one of which was that he should be educated in the tenets of the Anglican Church, notwithstanding the Roman Catholic persuasion of the rest of the family.

The track for wheels that here descended to the water's edge from the north, Church Street subsequently, was long considered a road remote from the business part of the town, like the road southward of Charing-cross, as shewn in Aggas's early map of London. A row of frame buildings on its eastern side, in the direction of King Street, perched high on cedar posts over excavations generally filled with water, remained in an unfinished state until the whole began to be out of the perpendicular and to become gray with the action of the weather. It was evidently a premature undertaking; the folly of an over-sanguine speculator. Yonge Street beyond, where it approached the shore of the harbour, was unfrequented. In spring and autumn it was a notorious slough. In 1830, a small sum would have purchased any of the building lots on either side, between Front Street and Market Street.

Between Church Street and Yonge Street, now, we pass a short street uniting Front Street with Wellington Street. Like Salisbury, Cecil, Craven, and other short but famous streets off the Strand, it retains the name of the distinguished person whose property it traversed in the first instance. It is called Scott Street, from Chief Justice Thomas Scott, whose residence and grounds were here. Mr. Scott was one of the venerable group of early personages of whom we shall have occasion to speak. He was a man of fine culture, and is spoken of affectionately by those who knew him. His stature was below the average. A heavy, overhanging forehead intensified the very thoughtful expression of his countenance, which belonged to the class suggested by the current portraits of the United States' jurist, Kent. We sometimes, to this day, fall in with books from his library, bearing his familiar autograph. Mr. Scott was the first chairman and president of the "Loyal and Patriotic Society of Upper Canada," organized at York in 1812. His name consequently appears often in the Report of that Association, printed by William Gray in Montreal in 1817. The objects of the Society were "to afford relief and aid to disabled militiamen and their families; to reward merit, excite emulation, and commemorate glorious exploits, by bestowing medals and other honorary marks of public approbation and distinction for extraordinary instances of personal courage and fidelity in defence of the Province." The preface to the Report mentions that "the sister-colony of Nova Scotia, excited by the barbarous conflagration of the town of Newark and the devastation on that frontier, had, by a Legislative act, contributed largely to the relief of this Province." In an appeal to the British public, signed by Chief Justice Scott, it is stated that "the subscription of the town of York amounted in a few days to eight hundred and seventy-five pounds five shillings, Provincial currency, dollars at five shillings each, to be paid annually during the war; and that at Kingston to upwards of four hundred pounds."

Scott Street conducts to the site, on the north side of Hospital Street, westward, of the home of Mr. James Baby, and eastward, to that of Mr. Peter Macdougall, two notable citizens of York.

A notice of Mr. Baby occurs in Sibbald's *Canadian Magazine* for March, 1833. The following is an extract: "James Baby was born at Detroit in 1762. His family was one of the most ancient in the colony; and it was noble. His father had removed from Lower Canada to the neighbourhood of Detroit before the conquest of Quebec, where, in addition to the cultivation of lands, he was connected with the fur-trade, at that time, and for many years after, the great staple of the country. James was educated at the Roman Catholic Seminary at Quebec, and returned to the paternal roof soon after the peace of 1783. The family had ever been distinguished (and indeed all the higher French families) for their adherence to the British crown;

and to this, more than to any other cause, are we to attribute the conduct of the Province of Quebec during the American War. Being a great favourite with his father, James was permitted to make an excursion to Europe, before engaging steadily in business; and after spending some time, especially in England, rejoined his family. \* \* \* There was a primitive simplicity in Mr. Baby's character, which, added to his polished manners and benignity of disposition, threw a moral beauty around him which is very seldom beheld." In the history of the Indian chief Pontiac, who, in 1763, aimed at extirpating the English, the name of Mr. Baby's father repeatedly occurs. The Canadian *habitans* of the neighbourhood of Detroit, being of French origin, were unmolested by the Indians; but a rumour had reached the great Ottawa chief, while the memorable siege of Detroit was in progress, that the Canadians had accepted a bribe from the English to induce them to attack the Indians. "Pontiac," we read in Parkman's History, p. 227, "had been an old friend of Baby; and one evening, at an early period of the siege, he entered his house, and, seating himself by the fire, looked for some time steadily at the embers. At length, raising his head, he said he had heard that the English had offered the Canadian a bushel of silver for the scalp of his friend. Baby declared that the story was false, and protested that he would never betray him. Pontiac for a moment keenly studied his features. 'My brother has spoken the truth,' he said, 'and I will shew that I believe him.' He remained in the house through the evening, and, at its close, wrapped himself in his blanket and lay down upon a bench, where he slept in full confidence till morning."

Mr. Macdougall was a gentleman of Scottish descent, but, like his compatriots in the neighbourhood of Murray Bay, so thoroughly Lower-Canadianised as to be imperfectly acquainted with the English language to the last. He was a successful merchant of the town of York, and filled a place in the old local conversational talk, in which he was sometimes spoken of as "Wholesale, Retail, Pete MacDoug,"—an expression employed by himself on some occasion. He is said once to have been much perplexed by the item "ditto" occurring in a bill of lading furnished of goods under way; he could not remember having given orders for any such article. He was a shrewd business man. An impression prevailed in certain quarters that his profits were sometimes superabundant. While he was living at Niagara, some burglars from Y angstown broke into his warehouse; and after helping themselves to whatever they pleased, they left a written memorandum accounting for their not having taken with them certain other articles: it was "because they were marked too high." That he was accustomed to affix a somewhat arbitrary value to his merchandise, seems to be shewn by another story that was told of him. He was said, one day, when trade in general was very dull, to have boasted that he had that very morning made £100 by a single operation. On being questioned, it appeared that it had been simply a sudden enlargement of the figure marked on all his stock to the extent of £100. One other story of him is this:—On hearing a brother dealer lament that by a certain speculation he should, after all, make only 5 per cent., he expressed his surprise, adding that he himself would be satisfied with 3, or even 2 (taking the figures 2, 3, &c., to mean 2 hundred, 3 hundred, &c.).

Of Yonge Street itself, at which we now arrive, we propose to speak at large hereafter. Just westward from Yonge Street was the abode, surrounded by pleasant grounds and trees, of Mr. Macaulay, at a late period Sir James Macaulay, Chief Justice of the Common Pleas, a man beloved and honoured for his sterling excellence in every relation. A full-length portrait of him is preserved in Osgoode Hall. His peculiar profile, not discernible in that painting is recalled by the engraving of Capt. Starkey, which some readers will remember in *Hone's Every-Day Book*. Advancing a little further, we came in front of one of the earliest examples, in these parts, of an English-looking rustic cottage, with verandah and sloping lawn. This was occupied for a time by Major Hillier, aide-de-camp and military secretary to Sir Peregrine Maitland. The well-developed native thorn-tree on the property of Mr. Andrew Mercer is a relic of the ornamental grove that partially surrounded this cottage.

Next came the residence of Mr. Justice Boulton, a spacious family domicile of wood, painted white, situated in an extensive area, and placed far back from the road. The Judge was an English gentleman of spare Wellington physique; like many of his descendants, a lover of horses and a spirited rider; a man of wit, too, and humour, fond of listening to and narrating anecdotes of the *ben trovato* class. The successor to this family home was Holland House, a castellated

structure, round which we might expect to find the remains of a moat; a reproduction, in some points, as in name, of the building in the suburbs of London, in which was born the Judge's immediate heir, Mr. H. J. Boulton, successively Solicitor-General for Upper Canada and Chief-Justice of Newfoundland.

We then passed the grounds and house of Chief-Justice Powell. In this place we shall only record our recollection of the profound sensation created far and wide by the loss of the Chief-Justice's daughter in the packet-ship *Albion*, wrecked off the Head of Kinsale on the 22nd of April, 1822. A voyage to the mother country at that period was still a serious undertaking. We copy a contemporaneous extract from the *Cork Southern Reporter*:—"The *Albion*, whose loss at Garretstown Bay we first mentioned in our paper of Tuesday, was one of the finest class of ships between Liverpool and New York, and was 500 tons burden. We have since learned some further particulars, by which it appears that her loss was attended with circumstances of a peculiarly afflicting nature. She had lived out the tremendous gale of the entire day on Sunday, and Captain Williams consoled the passengers, at eight o'clock in the evening, with the hope of being able to reach Liverpool on the day but one after, which cheering expectation induced almost all of the passengers, particularly the females, to retire to rest. In some short time, however, a violent squall came on, which in a moment carried away the masts, and, there being no possibility of disengaging them from the rigging, encumbered the hull so that she became unmanageable, and drifted at the mercy of the waves, till the light-house of the Old Head was discovered, the wreck still nearing in; when the Captain told the sad news to the passengers, that there was no longer any hope; and, soon after, she struck. From thenceforward all was distress and confusion. The vessel soon went to pieces, and, of the crew and passengers, only six of the former and nine of the latter were saved." The names of the passengers are added, as follows: "Mr. Benyon, a London gentleman; Mr. N. Ross, of Troy, near New York; Mr. Conyers, and his brother-in-law, Major Gough, 68th regiment; Mr. and Mrs. Clarke, Americans; Madame Gardinier and son, a boy about eight years of age; Colonel Prevost; Mr. Dwight, of Boston; Mrs. Mary Pye, of New York; Miss Powell, daughter of the Hon. William Dummer Powell, Chief-Justice of Upper Canada; Rev. Mr. Hill, Jamaica, coming home by the way of the United States; Professor Fisher, of New Haven, Connecticut; Mr. Gurnee, New York; Mr. Proctor, New York; Mr. Dupont and five other Frenchmen; Mrs. Mary Brewster; Mr. Hirst, Mr. Morrison, and Stephen Chase." The *Weekly Register* of York, of June 13, 1822, the number that contains the announcement of the wreck of the *Albion* packet, has also the following paragraph:—"Our Attorney-General arrived in London about the 22nd of March, and up to the 11th of April had daily interviews of great length with ministers. It gives us real pleasure to announce,"—so continues the editorial of the *Weekly Register*—"that his mission is likely to be attended with the most complete success, and that our relations with the Lower Provinces will be put on a firm and advantageous footing. We have no doubt that Mr. Robinson will deserve the general thanks of the country." A family party from York had embarked in the packet of the preceding month, and were, as this paragraph intimates, safe in London on the 22nd of March. The disastrous fate of the lady above named was thus rendered the more distressing to friends and relatives, as she was present in New York when that packet sailed, but was induced, through the influence of some obscure pique, not to embark therein along with her more fortunate fellow townfolk.

After the house and grounds of Chief-Justice Powell came the property of Dr. Strachan, of whom more hereafter. It may be of some interest to note, as we pass, that the brick edifice here erected in 1818, was, like other early buildings of this description in York, constructed of materials imported from Kingston or Montreal; recalling the parallel fact that the first bricks used for building in New York were imported from Holland; just as, in the present day, (though now, of course, for a different reason,) houses are occasionally constructed at Quebec with white brick manufactured in England.

We next arrived at a large open space, much broken up by a rivulet—"Russell's Creek,"—that meandered most recklessly through it. This piece of ground was long known as Simcoe Place, and was set apart in the later plan for the extension of York westward, as a Public Square. Overlooking this area from the north-west, at the present day, is one of the elms of the original forest—an unnoticeable sapling at the period referred to, but now a tree of stately dimensions

and of very graceful form, resembling that of the Greek letter Psi. It will be a matter of regret when the necessities of the case shall render the removal of this relic indispensable. At the corner to the south of this conspicuous tree, was an inn long known as the Greenland Fishery. Its sign bore on one side, quite passably done, an Arctic or Greenland scene; and on the other, vessels and boats engaged in the capture of the whale. A travelling sailor, familiar with whalers, and additionally a man of some artistic taste and skill, paid his reckoning in labour, by executing for the landlord, Mr. Wright, these spirited paintings, which proved an attraction to the house.

John Street, which passes north, by the Greenland Fishery, bears one of the Christian names of the first Governor of Upper Canada. Graves Street, on the east side of the adjoining Square bore his second Christian name; but Graves Street has, in recent times, been transformed into Simcoe Street.

When the Houses of Parliament, now to be seen stretching across Simcoe Place, were first built, a part of the design was a central pediment supported by four stone columns. This would have given dignity to the edifice. The stone platform before the principal entrance was erected, with a flight of steps leading thereto; but a momentary economy, as we suppose, led to the postponement of the ornamental superstructure. The monoliths for the intended pillars were duly cut out at a quarry near Hamilton. They long remained lying there, in an unfinished state. In the lithographic view of the Parliament Buildings, published by J. Young, their architect, in 1826, the pediment just spoken of is given as though it existed.

Along the edge of the water, below the properties, spaces and objects which we have been engaged in noticing, ran a shingly beach of a width sufficient to admit of the passage of vehicles. A succession of dry seasons, we suppose, must then have kept the waters low. In 1815, the waters of the Lake appear to have been unusually high. An almanac of that year, published by John Cameron, at York, offers the subjoined explanation of the phenomenon, from which it will seem that the Lake-level and the temperature of the air were subject to fluctuations just as they are now. "The comet which passed to the northward three years since," the writer suggests, "has sensibly affected our seasons: they have become colder; the snows fall deeper; and from lesser exhalation, and other causes, the Lakes rise much higher than usual."

The commissariat store-houses were situated here, just beyond the broken ground of Simcoe Place; long white structures of wood, with the shutters of the windows always closed; built on a level with the bay, yet having an entrance by a narrow gangway from the cliff above, on which, close by, was the guard-house, a small building, painted of a dun colour, with a roof of one slope, inclining to the south, and an arched stoup or verandah open to the north. Here a sentry was ever to be seen, pacing up and down. A light bridge over a deep water-course led up to the guard-house. Over other depressions or ravines, close by here, were long to be seen some platforms or floored areas of stout plank. These were the spaces occupied by different portions of the renowned canvas-house of the first Governor, a structure manufactured in London and imported. The convenience of its plan, and the hospitality for which it afforded room, were favourite topics among the early people of the country. We have in Bouchette's *British North America* a reference to this famous canvas house. "In the spring [i. e., in 1794]," that writer says, "the Lieutenant-Governor moved to the site of the new capital [York], attended by the regiment of Queen's Rangers, and commenced at once the realization of his favourite project. His Excellency inhabited, during the summer, and through the winter, a canvas-house, which he imported expressly for the occasion; but, frail as was its substance, it was rendered exceedingly comfortable, and soon became as distinguished for the social and urbane hospitality of its venerable and gracious host, as for the peculiarity of its structure," vol. i. 80. After this allusion to the home Canadian life of the first Governor, the following remarks of de Liancourt, on the same subject, will not appear out of place:—"In his private life," the Duke says, "Gov. Simcoe is simple, plain and obliging. He inhabits [the reference now is to Newark or Niagara,] a small, miserable wooden house, which formerly was occupied by the Commissaries, who resided here on account of the navigation of the lake. His guard consists of four soldiers, who every morning come from the fort [across the river], and return thither in the evening. He lives in a noble and hospitable manner, without pride; his mind is enlightened, his character mild and obliging; he discourses with much good sense on all subjects; but his favourite topics

are his projects, and war, which seem to be the objects of his leading passions. He is acquainted with the military history of all countries: no hillock catches his eye without exciting in his mind the idea of a fort which might be constructed on the spot; and with the construction of this fort he associates the plan of operations for a campaign, especially of that which is to lead him to Philadelphia. [Gen. Simcoe appears to have been strongly of the opinion that the United States were not going to be a permanency.] On hearing his professions of an earnest desire of peace, you cannot but suppose, either that his reason must hold an absolute sway over his passion, or that he deceives himself." *Travels*, i. 241. Other traits, which doubtless at this time gave a charm to the home-life of the accomplished Governor, may be gathered from a passage in the correspondence, at a later period, of Polwhele, the historian of Cornwall, who says, in a letter addressed to the General himself, dated Manaccan, Nov. 5th, 1803:—"I have been sorely disappointed, once or twice, in missing you, whilst you were inspecting Cornwall. It was not long after your visit at my friend Mr. Hoblyn's, but I slept also at Nanswhydden. Had I met you there, the *Noctes Atticæ*, the *Cænæ Deorum*, would have been renewed, if peradventure the chess-board intervened not; for rooks and pawns, I think, would have frightened away the Muses, familiar as rooks and pawns might have been to the suitors of Penelope." *Polwhele*, 544.

Near the Commissariat store-houses was the site of the Naval Building Yard, where an unfinished ship-of-war and the materials collected for the construction of others, were destroyed, when the United States' forces took possession of York in 1813. It appears that Bouchette had just been pointing out to the Government the exposed condition of the public property here. In a note at p. 89 of his "British North America" that officer remarks: "The defenceless situation of York, the mode of its capture, and the destruction of the large ship then on the stocks, were but too prophetically demonstrated in my report to headquarters in Lower Canada, on my return from a responsible mission to the capital of the Upper Province, in the early part of April. Indeed the communication of the result of my reconnoitering operations, and the intelligence of the successful invasion of York, and the firing of the new ship by the enemy, were received almost simultaneously." The Governor-in-Chief, Sir George Prevost, was blamed for having permitted a frigate to be laid down in an unprotected position. There was a "striking impropriety," as the Third Letter of the celebrated *Veritas* points out, "in building at York, without providing the means of security there, as the works of defence, projected by General Brock, (when he contemplated, before the war, the removal of the naval dépôt from Kingston to York, by reason of the proximity of the former to the States in winter by the ice,) were discontinued by orders from below, [from Sir George Prevost, that is,] and never resumed. The position intended to have been fortified by General Brock, near York, was," *Veritas* continues, "capable of being made very strong, had his plan been executed; but as it was not, nor any other plan of defence adopted, a ship-yard without protection became an allurement to the enemy, as was felt to the cost of the inhabitants of York."

In the year 1832, the interior of the Commissariat-store, decorated with flags, was the scene of the first charitable bazaar held in these parts. It was for the relief of distress occasioned by a recent visitation of cholera. The enterprise appears to have been remarkably successful. We have a notice of it in Sibbald's *Canadian Magazine* of January, 1833, in the following terms: "All the fashionable and well-disposed attended; the band of the gallant 79th played; at each table stood a lady; and in a very short time all the articles were sold to gentlemen,—who will keep 'as the apple of their eye' the things made and presented by such hands." The sum collected on the occasion, it is added, was three hundred and eleven pounds.

Where Windsor Street now appears—with its grand iron gates at either end, inviting or forbidding the entrance of the stranger to the prim, quaint, self-contained little village within—formerly stood the abode of Mr. John Beikie, whose tall, upright, staidly-moving form, generally enveloped in a long snuff-coloured overcoat, was one of the *dramatis personæ* of York. He had been, at an early period, sheriff of the Home District; at a later time his signature was familiar to every eye, attached in the *Gazette* to notices put forth by the Executive Council of the day, of which rather aristocratic body he was the Clerk.

Passing westward, we had on the right the spacious home of Mr. Crookshank, a benevolent and excellent man, sometime Receiver-General of the Province, of whom we shall again have occasion to speak; and on the left, on a promontory suddenly jutting out into the harbour,

"Captain Bonnycastle's cottage," with garden and picturesque grove attached; all Ordnance property in reality, and once occupied by Col. Coffin. The whole has now been literally eaten away by the ruthless tooth of the steam excavator. On the beach to the west of this promontory was a much frequented bathing-place. Captain Bonnycastle, just named, was afterwards Sir Richard, and the author of "Canada as it was, is, and may be," and "Canada and the Canadians in 1846."

The name "Peter," attached to the street which flanks on the west the ancient homestead and extensive outbuildings of Mr. Crookshank, is a memento, we believe, of the president or administrator, Peter Russell.

We come here to the western boundary of the so-called New Town—the limit of the first important extension of York westward. The limit, eastward, of the New Town, was a thoroughfare known in the former day as Toronto Street, which was one street east of Yonge Street, represented now, not by the modern Toronto Street, but by Victoria Street. At the period when the plan was designed for this grand western and north-western suburb of York, Yonge Street was not opened southward farther than Lot [Queen] Street. The roadway there suddenly veered to the eastward, and then, after a short interval, passed down "Toronto Street," that is, Victoria Street, or rather a roadway a little to the west of the existing Victoria Street.—The tradition in Boston used to be, that some of the streets there followed the line of accidental cow-paths formed in the olden time in the uncleared bush; and no doubt other old American towns, like the ancient European towns generally, exhibit, in the direction of their thoroughfares, occasionally, traces of casual circumstances in the history of the first settlers on their respective sites. The practice at later periods has been to make all ways run as nearly as possible in right lines. In one or two "jogs" or irregularities, observable in the streets of the Toronto of to-day, we have memorials of early waggon tracks which ran where they most conveniently could. The slight meandering of Front Street in its course from the garrison to the site of the first Parliament Buildings, and of Britain Street, (an obscure passage between George Street and Caroline Street,) may be thus explained; as also the fact that the southern end of the present Victoria Street does not connect immediately with the present Toronto Street. This last-mentioned irregularity is a relic of the time when the great road from the north, namely, Yonge Street, on reaching Queen Street, slanted off to the eastward across vacant lots and open ground, making by the nearest and most convenient route for the market and the heart of the town.

After the laying-out in lots of the region comprehended in the first great expansion of York, of which we have spoken, inquiries were instituted by the authorities as to the improvements made by the holders of each. In the chart accompanying the report of the surveyor appointed to make the examination, the lots are coloured according to the condition of each, and appended are the following curious particulars, which smack somewhat of the ever-memorable town-plot of Eden, to which Martin Chuzzlewit was induced to repair, and which offered a lively picture of an infant metropolis in the rough. (We must represent to ourselves a chequered diagram; some of the squares white or blank; some tinted blue; some shaded black; the whole entitled "Sketch of the Part of the Town of York east of Toronto Street.")—"Explanation: The blank lots are cleared, agreeable to the notice issued from his Excellency the Lieutenant-Governor, bearing date September the fourth, 1800. The lots shaded blue are chiefly cut, but the brush not burnt; and those marked with the letter A, the brush only cut. The lots shaded black, no work done. The survey made by order of the Surveyor-General's office, bearing date April the 23rd, 1801." A more precise examination appears to have been demanded. The explanations appended to the second plan, which has squares shaded brown, in addition to those coloured blue and black, are: "1st. The blank lots are cleared. 2nd. The lots shaded black, *no work done*. 3rd. The lots shaded brown, *the brush cut and burnt*. 4th. The lots shaded blue, *the brush cut and not burnt*. N.B. The lots 1 and 2 on the north side of Newgate Street [the site subsequently of the dwelling-house of Jesse Ketchum, of whom hereafter], are mostly clear of the large timber, and some *brush cut* also, but *not burnt*; therefore omitted in the first report. This second examination done by order of the Honorable John Elmsley, Esq."

The second extension of York westward included the Government Common. The staking out of streets here was a comparatively late event. Brock Street, to which we have now approached,

had its name, of course, from the General officer slain at Queenston, and its extra width from the example set in the avenue to the north, into which it merges after crossing Queen Street. A little to the west of Brock Street was the old military burying-ground, a clearing in the thick brushwood of the locality: of an oblong shape, its four picketed sides directed exactly towards the four cardinal points. The setting off of the neighbouring streets and lots at a different angle, caused the boundary lines of this plot to run askew to every other straight line in the vicinity.—Over how many a now forgotten and even obliterated grave have the customary farewell volleys here been fired!—those final honours to the soldier, always so touching; intended doubtless, in the old barbaric way, to be an incentive to endurance in the sound and well; and consolatory, in anticipation, to the sick and dying. In the mould of this old cemetery, what a mingling from distant quarters! Hearts finally at rest here, fluttered in their last beats, far away, at times, to old familiar scenes “beloved in vain” long ago; to villages, hedgerows, lanes, fields, in green England and Ireland, in rugged Scotland and Wales. Many a widow, standing at an open grave here, holding the hand of orphan boy or girl, has “wept her soldier dead;” not slain in the battle-field, indeed, but fallen, nevertheless, in the fulfilment of duty, before one or other of the many subtle assailants that, even in times of peace, bring the career of the military man to a premature close.—Among the remains deposited in this ancient burial-plot are those of a child of the first Governor of Upper Canada, a fact commemorated on the exterior of the mortuary chapel over his own grave in Devonshire, by a tablet on which York is spoken of as “Yorktown.”—Close to the military burying-ground was once enacted a scene which might have occurred at the obsequies of a Tartar chief in the days of old. Capt. Battersby, sent out to take command of a Provincial corps, was the owner of several fine horses, to which he was greatly attached. On his being ordered home, after the war of 1812, friends and others began to make offers for the purchase of the animals: but no; he would enter into no treaty with any one on that score. What his decision had been became apparent the day before his departure from York. He then had his poor dumb favourites led out by some soldiers to the vicinity of the burying-ground; and there he caused each of them to be deliberately shot dead. He did not care to entrust to the tender mercies of strangers, in the future, the faithful creatures that had served him so well, and had borne him whithersoever he listed, so willingly and bravely. The carcasses were interred on the spot where the shooting had taken place.

Returning now again to Brock Street, and placing ourselves at the middle point of its great width—immediately before us to the north, on the ridge which bounds the view in the distance, we discern a white object. This is Spadina House, from which the avenue into which Brock Street passes, takes its name. The word Spadina itself is an Indian term modified, descriptive of a sudden rise of land like that on which the house in the distance stands. Spadina was the residence of Dr. W. W. Baldwin, to whom reference has already been made. A liberal in his political views, he nevertheless was strongly influenced by the feudal feeling which was a second nature with most persons in the British Islands some years ago. His purpose was to establish in Canada a family, whose head was to be maintained in opulence by the proceeds of an entailed estate. There was to be forever a Baldwin of Spadina. It is singular that the first inheritor of the newly-established patrimony should have been the statesman whose lot it was to carry through the Legislature of Canada the abolition of the rights of primogeniture. The son grasped more readily than the father what the genius of the North American continent will endure, and what it will not. Spadina Avenue was laid out by Dr. Baldwin on a scale that would have satisfied the designer of St. Petersburg or Washington. Its width is one hundred and twenty feet. Its length from the water's edge to the base of Spadina Hill would be nearly three miles. Garnished on both sides by a double row of full grown chestnut trees, it would vie in magnificence, when seen from an eminence, with the Long Walk at Windsor.

Eastward of Spadina House, on the same elevation of land, was Davenport, the picturesque and chateau-like home of Col. Wells, built at an early period. Col. Wells was a fine example of the English officer, whom we so often see retiring from the camp gracefully and happily into domestic life. A faithful portrait of him exists, in which he wears the gold medal of Budajoz. His sons, natural artists and arbiters of taste, inherited, along with their æsthetic gifts, also lithic and handsome persons. One of them, like his father, now a Lieutenant-Colonel in the army, was highly distinguished in the Crimea; and on revisiting Toronto after the peace with



Russia, was publicly presented with a sword of honour.—The view of the Lake and intervening forest, as seen from Davenport and Spadina, before the cultivation of the alluvial plain below, was always fine.

### III.—FROM BROCK STREET TO THE OLD FRENCH FORT.

Returning again to the front. The portion of the Common that lies immediately west of the foot of Brock Street was enclosed for the first time and ornamentally planted by Mr. Jameson. Before his removal to Canada, Mr. Jameson had filled a judicial situation in the West Indies. In Canada, he was successively Attorney-General and Vice-Chancellor, the Chancellorship itself being vested in the Crown. The conversational powers of Mr. Jameson were admirable; and no slight interest attached to the pleasant talk of one who, in his younger days, had been the familiar associate of Southey, Wordsworth, and Samuel Taylor Coleridge. In a volume of poems by Hartley Coleridge, son of the philosopher, published in 1833, the three sonnets addressed "To a Friend," were addressed to Mr. Jameson, as we are informed in a note. We give the first of these little poems at length:

"When we were idlers with the loitering rills,  
The need of human love we little noted:  
Our love was nature; and the peace that floated  
On the white mist, and dwelt upon the hills,  
To sweet accord subdued our wayward wills:  
One soul was ours, one mind, one heart devoted,  
That, wisely doating, asked not why it doated,  
And ours the unknown joy, which knowing kills.  
But now I find how dear thou wert to me;  
That man is more than half of nature's treasure,  
Of that fair Beauty which no eye can see,  
Of that sweet music which no ear can measure;  
And now the streams may sing for others' pleasure,  
The hills sleep on in their eternity."

The note appended, which appears only in the first edition, is as follows: "This sonnet, and the two following, my earliest attempts at that form of versification, were addressed to R. S. Jameson, Esq., on occasion of meeting him in London, after a separation of some years. He was the favourite companion of my boyhood, the active friend and sincere counsellor of my youth—"Though seas between us broad ha' roll'd" since we "travelled side by side" last, I trust the sight of this little volume will give rise to recollections that will make him ten years younger. He is now Judge Advocate at Dominica, and husband of Mrs. Jameson, authoress of the "Diary of an Ennuyée," "Loves of the Poets," and other agreeable productions." Mr. Jameson was a man of high culture and fine literary tastes. He was, moreover, an amateur artist of no ordinary skill, as extant drawings of his in water-colours attest. His countenance, especially in his old age, was of the Jeremy Bentham stamp. It was from the house on the west of Brock Street that Mrs. Jameson dated the letters which constituted her well-known "Winter Studies and Summer Rambles." That volume thus closes: "At three o'clock in the morning, just as the moon was setting in Lake Ontario, I arrived at the door of my own house in Toronto, having been absent on this wild expedition [to the Sault] just two months." York had then been two years Toronto. (For having ventured to pass down the rapids at the Sault, she had been formally named by the Ochipways of the locality, *Was-sa-je-wun-e-gua*, "Woman of the Bright Stream.") The Preface to the American edition of Mrs. Jameson's "Characteristics of Women" was also written here. In that Introduction we can detect a touch due to the "wild expedition" just spoken of. "They say," she observes, "that as a savage proves his heroism by displaying in grim array the torn scalps of his enemies, so a woman thinks she proves her virtue by exhibiting the mangled reputations of her friends": a censure, she adds, which is just: but the propensity, she explains, is wrongly attributed to ill-nature and jealousy. "Ignorance," she proceeds, "is the main cause; ignorance of ourselves and others; and when I have heard any

female acquaintance commenting with a spiteful or a sprightly levity on the delinquencies and mistakes of their sex, I have only said to myself, "They know not what they do." "Hero, then," the Preface referred to thus concludes, "I present to women a little elementary manual or introduction to that knowledge of woman, in which they may learn to understand better their own nature; to judge more justly, more gently, more truly of each other,

'And in the silent hour of inward thought  
To still suspect, yet still revere themselves  
In lowliness of heart.'

Mrs. Jameson was unattractive in person at first sight, although, as could scarcely fail to be the case in one so highly endowed, her features, separately considered, were fine and boldly marked. Intellectually, she was an enchantress. Besides an originality and independence of judgment on most subjects, and a facility in generalizing and reducing thought to the form of a neat aphorism, she had a strong and capacious memory, richly furnished with choice things. Her conversation was consequently of the most fascinating kind. She sang, too, in sweet taste, with a quiet softness, without display. She sketched from nature with great elegance, and designed cleverly. The seven or eight illustrations which appear in the American edition of the "Characteristics," dated at Toronto, are etched by herself, and bear her autograph, "Anna." The same is to be observed of the illustrations in the English edition of her "Commonplace Book of Thoughts, Memories, and Fancies;" and in her larger volumes on various Art-subjects. She had supereminently beautiful hands, which she always scrupulously guarded from contact with the outer air. Mrs. Jameson was a connoisseur in "hands," as we gather from her Commonplace Book, just mentioned. She there says: "There are hands of various character; the hand to catch, and the hand to hold; the hand to clasp, and the hand to grasp; the hand that has worked, or could work, and the hand that has never done anything but hold itself out to be kissed, like that of Joanna of Arragon in Raphael's picture." Her own appeared to belong to the last-named class. Though the merest trifles, we may record here one or two further personal recollections of Mrs. Jameson; of her appreciation, for example, of a very obvious quotation from Horace, to be appended to a little sketch of her own, representing a child asleep, but in danger from a serpent near; and of her glad acceptance of an out-of-the-way scrap from the "Vanity of Arts and Sciences" of Cornelius Agrippa, which proved the antiquity of *charivaries*. "Do you not know that the intervention of a lady's hand is often requisite to the finish of a young man's education?" was a suggestive question drawn forth by some youthful maladroitness. Another characteristic dictum, "Society is one vast masquerade of manners," is remembered, as having been probably at the time a new idea to ourselves in particular. The irrational conventionalities of society she persistently sought to counteract, by her words on suitable occasions, and by her example, especially in point of dress, which did not strictly conform to the customs in vogue.—Among the local characters relished by her in Canada was Mr. Justice Hagerman, who united in himself some of the bluntness of Johnson with the physique of Charles James Fox. She set a high value on his talents, although we have heard her, at once playfully and graphically, speak of him as "that great mastiff, Hagerman." From Mrs. Jameson we learned that "Gaytay" was a sufficient approximation in English to the pronunciation of "Goethe." She had been intimately acquainted with the poet at Weimar.—In the Kensington Museum there is a bust, exceedingly fine, of Mrs. Jameson, by the celebrated sculptor Gibson, executed by him, as the inscription speaks, "in her honour." The head and countenance are of course somewhat idealized; but the likeness is well retained. In the small Boston edition of the "Legends of the Madonna" there is an interesting portrait of Mrs. Jameson, giving her appearance when far advanced in years.

Westward from the house and grounds whose associations have detained us so long, the space that was known as the Government Common is now traversed from south to north by two streets. Their names possess some interest, the first of them being that of the Duke of Portland, Viceroy of Ireland, Colonial Secretary, and three times Prime Minister in the reign of George the Third; the other that of Earl Bathurst, Secretary for the Colonies in George the Fourth's time.

Eastward of Bathurst Street, in the direction of the military burying-ground, there was long marked out by a furrow in the sward the ground-plan of a church. In 1880, the military chap-

lain, Mr. Hudson, addressed to the commander of the forces a complaint "of the very great inconvenience to which the troops are exposed in having to march so far to the place of worship, particularly when the weather and roads are so unfavourable during a greater part of the year in this country, the distance from the Barracks to the Church being two miles:" adding, "In June last, the roads were in such a state as to prevent the Troops from attending Church for four successive Sundays." He then suggested "the propriety of erecting a chapel on the Government reserve for the accommodation of the Troops." The Horse Guards refused to undertake the erection of a chapel here, but made a donation of one thousand pounds towards the re-edification of St. James' Church, "on condition that accommodation should be permanently provided for His Majesty's Troops." The outline in the turf was a relic of Mr. Hudson's suggestion. The line that defined the limit of the Government Common to the north and east, (and west, of course, likewise,) prior to its division into building lots, was a portion of the circumference of a great circle, "of a radius of 1000 yards, more or less," whose centre was the Fort. On the old plans of York, arcs of this great circle are traced, with two interior concentric arcs, of radii respectively of eight and five hundred yards.

We now soon arrive at the ravine of the "Garrison Creek." We have heard that in the rivulet below, for some distance up the valley, before the clearing away of the woods, salmon used to be taken at certain seasons of the year. Crossing the stream, and ascending to the arched gateway of the fort (we are speaking of it as it used to be), we pass between the strong iron-studded portals, which are thrown back: we pass a sentry just within the gate, and the guard-house on the left. At present we do not tarry within the enclosure of the Fort. We simply glance at the loop-holed block-house on the one side, and the quarters of the men, the officers, and the commandant on the other; and we hurry across the gravelled area, recalling rapidly a series of spirit-stirring ordinal numbers—49th, 41st, 68th, 79th, 42nd, 15th, 32nd, 1st—each suggestive of a gallant assemblage at some time here; of a vigorous, finely-disciplined, ready-aye-ready group, that, like the successive generations on the stage of human life, came and went just once, as it were—as the years rolled on, and the eye saw them again no more. We pass out through the western gate to the large open green space which lies on the farther side. This is the Garrison Reserve. It bears the same relation to the modern Toronto and the ancient York as the Plains of Abraham do to Quebec. It was here that the struggle took place, in the olden time, that led to the capture of the town. In both cases the leader of the aggressive expedition "fell victorious." But the analogy holds no further; as, in the case of the inferior conquest, the successful power did not retain permanent possession.

The Wolfe Cove, the landing-place, we mean, of the invader, on the occasion referred to, was just within the curve of the Humber Bay, far to the west, where Queen Street now skirts the beach for a short distance and then emerges on it. The intention had been to land more to the eastward, but the vessels containing the hostile force were driven westward by the winds.

The debarkation was opposed by a handful of Indians, under Major Givins. The Glengarry Fencibles had been despatched to aid in this service, but, attempting to approach the spot by a back road, they lost their way. A tradition exists that the name of the Grenadiers' Pond, a lagoon a little to the west, one of the ancient outlets of the waters of the Humber, is connected with the disastrous bewilderment of a party of the regular troops at this critical period. It is at the same time asserted that the name "Grenadiers' Pond" was familiar previously. At length companies of the Eighth Regiment, of the Royal Newfoundland Regiment, and of Incorporated Militia, made their appearance on the ground, and disputed the progress inland of the enemy. After suffering severely, they retired towards the Fort. This was the existing Fort. The result is now matter of history, and need not be detailed. As portions of the cliff have fallen away from time to time along the shore here, numerous skeletons have been exposed to view, relics of friend and foe slain on the adjacent common, where, also, military ornaments and fragments of fire-arms, used frequently to be dug up. Some of the bones referred to, however, may have been remains of early French and Indian traders.

The site of the original French stockade, established here in the middle of the last century, was nearly at the middle point between the landing-place of the United States force in 1813, and the existing Fort. Before the erection of the white cut-stone Barracks, several earthworks and grass-grown excavations marked the spot. These ruins, which we have often visited, were popularly designated "The Old French Fort."

It is interesting to observe the probable process by which the appellation "Toronto" came to be attached to the Trading-post here. Its real name, as imposed by the French authorities, was Fort Rouillé, from a French colonial minister of that name, in 1749-54. This we learn from a despatch of M. de Longueuil, Governor-in-Chief of Canada in 1762. And "Toronto," at that period, according to contemporaneous maps, denoted Lake Simcoe and the surrounding region, thus in Carver's Travels through North America in 1766-8, in p. 172, we read, "On the north-west part of this lake [Ontario], and to the south of Lake Huron, is a tribe of Indians called the Mississagues, whose town is denominated Toronto, from the lake [*i. e.* Lake Simcoe] on which it lies, but they are not very numerous." This agrees with Lahontan's statements in 1687, which will be given hereafter. The supposition that "Toronto" is a changed Italian word, the proper name of either a place or a person, is entirely gratuitous, and wholly destitute of foundation.

Fort Rouillé was the terminus on Lake Ontario or one of the Iroquois highways to Lake Toronto. From being, as it were, a "Toronto station," the point of debarkation for an overland tramp to Toronto, it grew by some chance to be known as Toronto itself. The terminus *à quo* usurped the name of the terminus *ad quem*. (Another starting-point for the same destination was Teyogagon or Teialagon, further to the east; probably Bowmanville.)

Looking at the geographical position of Lake Simcoe, almost at the summit-level of the watershed between Lakes Huron and Ontario; communicating with both by trails along river valleys; with Lake Huron by Willow Creek and the Notawasaga, by the Coldwater and by the Severn;—with Lake Ontario by the Holland River and the Humber, by Black River and the Scugog;—communicating, moreover, after portages, eastward, with the chain of lakes that find their outlet by the Trent and the Bay of Quinté,—and even with the farther distant waters of the Ottawa—regarding, we say, the facilities for intercourse with the West and North, with the South and East, which centre here, we may conceive Lake Simcoe and its neighbourhood to have been, in the olden time, the true "Place of Meeting," said to be denoted by the (no doubt greatly manipulated) Iroquois word "Toronzo;" the Place of Meeting, either of tribes or of convenient water-ways; or even, it may be, the Place of Meeting where deadly passages of arms repeatedly occurred between hostile tribes. One of the principal fighting-grounds in the contest between the Western Hurons and Ojibways, and their (at length victorious) assailants, the Iroquois of the south side of Lake Ontario, in the middle of the seventeenth century, was the district to the north-west of Lake Simcoe, between Couchiching and Nolawasaga Bay. In the neighbourhood of Barrie, as elsewhere, barrows formerly existed which were found to contain surprising quantities of human remains, deposited without order, the skulls often bearing marks of violence. Hereabout also have been dug up many flint axes and arrow-heads. (To account for large gatherings of human remains, however, it is not necessary to suppose battles. It was the native practice to transport to special burial-spots, periodically, in a formal manner, the dead of temporary encampments.)

#### IV.—FROM THE GARRISON BACK TO THE PLACE OF BEGINNING.

We now enter again the existing Fort; passing back through the western gate. On our right we have the site of the magazine which so fatally exploded in 1813: we learn from Gen. Sheaffe's despatch to Sir George Provost, that it was "in the western battery." In close proximity to the magazine was the Government House of the day, an extensive rambling cluster of one-storey buildings, all "riddled" or shattered to pieces by the concussion, when the explosion took place. The ruin that thus befel the Governor's residence led, on the restoration of peace, to the purchase of Mr. Justice Elmsley's house on King street, and its conversion into "Government House."

From the main battery, which (with a small semi-circular bastion for the venerable flag-staff of the Fort) extends along the brow of the palisaded bank, south of the parade, the royal salutes, resounding down and across the lake, used to be fired on the arrival and departure of the Lieutenant-Governor, and at the opening and closing of the Legislature.

From the south-eastern bastion, overlooking the ravine below, a twelve-pounder was dis-

charged every day at noon. "The twelve-o'clock gun," when discontinued, was long missed with regret.

At the time of the invasion in 1812, the garrison of York was manned by the 3rd regiment of York militia. We have before us a relic of the period, in the form of the contemporary regimental order book of the Fort. An entry of the 29th of July, 1812, showing the approach of serious work, has an especial local interest. "In consequence of an order from Major-General Brock, commanding the forces, for a detachment of volunteers, under the command of Major Allan, to hold themselves in readiness to proceed in batteaux from the Head of the Lake to-morrow at 2 o'clock, the following officers, non-commissioned officers and privates will hold themselves in readiness to proceed at 2 o'clock, for the purpose of being fitted with caps, blankets and haversacks, as well as to draw provisions. On their arrival at the Head of the Lake, regimental coats and canteens will be ready to be issued to them." (The names are then given.) "Capt. Heward, Lieut. Richardson, Lieut. Jarvis, Lieut. Robinson. Sergeants Knott, Humberstone, Bond, Bridgeford."

In view of the test to which the citizen-soldiers were about to be subjected, the General, like a good officer, sought to get them all in good humour. "Major-General Brock," the order-book proceeds, "has desired me [Captain Stephen Heward] to acquaint the detachment under my command, of his high approbation of their orderly conduct and good discipline while under arms: that their exercise and marching far exceeded any that he had seen in the Province. And in particular he directed me to acquaint the officers how much he is pleased with their appearance in uniform, and their perfect knowledge of their duty." On the 13th of August, we learn from other sources, Brock was on the Western Frontier with 700 soldiers, including the volunteers from York, and 600 Indians; and on the 16th the old flag was waving from the fortress of Detroit; but, on the 13th of October, the brave General, though again a victor in the engagement, was himself a lifeless corpse on the slopes above Queenston; and in April of the following year, York, as we have already seen, was in the hands of the enemy. Such are the ups and downs of war. It is mentioned that "Push on the York Volunteers!" was the order issuing from the lips of the General, at the moment of the fatal shot. From the order-book referred to, we learn that "Toronto" was the parole or countersign of the garrison on the 23rd July, 1812.

The knoll on the east side of the Garrison Creek was covered with a number of buildings for the accommodation of troops, in addition to the barracks within the fort. Here also stood a blockhouse. Eastward were the surgeon's quarters, overhanging the bay; and further eastward still, were the commandant's quarters, a structure popularly known, by some freak of military language, as Lambeth Palace. Here for a time resided Major-General Aeneas Shaw, afterwards the owner and occupant of Oak Hill.

On the beach below the knoll there continued to be, for a number of years, a row of cannon, dismounted, duly spiked and otherwise disabled, memorials of the capture in 1813, when these guns were rendered useless by the regular troops before their retreat to Kingston. The pebbles on the shore about here were also plentifully mixed with loose canister shot, washed up by the waves, after their submersion in the bay on the same occasion.

From the little eminence just referred to, along the edge of the cliff, ran a gravel walk, which led first to the Guard House over the Commissariat Stores, in a direct line, with the exception of a slight divergence occasioned by "Capt. Bonnycastle's cottage;" and then eastward into the Town. Where ravines occurred, cut in the drift by water-courses into the bay, the gulf was spanned by a bridge of hewn logs. This walk, kept in order for many years by the military authorities, was the representative of the path first worn bare by the soft tread of the Indian. From its agreeableness, looking out as it did, throughout its whole length, over the Harbour and Lake, this walk gave birth to the idea, which became a fixed one in the minds of the early people of the place, that there was to be in perpetuity, in front of the whole town, a pleasant promenade, on which the burghers and their families should take the air and disport themselves generally. The Royal Patent by which this sentimental walk is provided for and decreed, issued on the 14th day of July, in the year 1818, designates it by the interesting old name of MALL, and nominates "John Beverley Robinson, William Allan, George Crookshank, Duncan Cameron and Grant Powell, all of the town of York, Esquires, their heirs and assigns forever, as trustees to hold the same for the use and benefit of the inhabitants." Stretching from Peter

Street in the west to the Reserve for Government Buildings in the east, of a breadth varying between four and five chains, following the line of Front Street on the one side, and the several turnings and windings of the bank on the other, the area of land contained in this Mall was "thirty acres, more or less, with allowance for the several cross streets leading from the said town to the water." The paucity of open squares in the early plans of York may be partly accounted for by this provision made for a spacious Public Walk.

While the archaeologist must regret the many old landmarks which were ruthlessly shorn away in the construction of the modern esplanade, he must, nevertheless, contemplate with never-ceasing admiration that great and laudable work. It has done for Toronto what the Thames embankment has effected for London. Besides vast sanitary advantages accruing, it has created space for the erection of a new front to the town. It has made room for a broad promenade some two or three miles in length, not, indeed, of the *far niente* type, but with double and treble railway tracks abreast of itself, all open to the deep water of the harbour on one side, and flanked almost throughout the whole length on the other, by a series of warehouses, mills, factories and depôts, destined to increase every year in importance. The sights and sounds every day, along this combination of roadways and its surroundings, are unlike anything dreamt of by the framers of the old Patent of 1818. But it cannot be said that the idea contained in that document has been wholly departed from: nay, it must be confessed that it has been grandly realized in a manner and on a scale adapted to the requirements of these latter days.

For some time, Front Street, above the Esplanade, continued to be a raised terrace, from which pleasant views and fresh lake air could be obtained; and attempts were made, at several points along its southern verge, to establish a double row of shade trees, which should recall in future ages the primitive oaks and elms that overlooked the margin of the harbour. But soon the erection of tall buildings on the newly-made land below, began to shut out the view and the breezes, and to discourage attempts at ornamentation by the planting of trees.

It is to be regretted, however, that the title of *Mall* has not yet been applied to some public walk in the town. Archaic sounds like these—reeve, warden, provost, recorder, House of Commons, railway (not road), dugway, *mall*—like the chimes in some of our towers, and the sung-service in some of our churches—associated all with memories of the old world across the seas—help, in cases where the imagination is paramount, to reconcile the exile from the British Islands to his adopted home, and even to attach him to it. Incorporated into our common local speech, and so perpetuated, they may also be hereafter subsidiary mementoes of our descent as a people, when all connection, save that of history, with the ancient home of our forefathers, will have ceased.

The gravelled path above described, in conjunction with a track for wheels extending along the cliff from the Fort to the town, and to the grounds of the Parliamentary buildings eastward of the town, led at a period which falls within the limits of these recollections, to the construction, or rather, as we shall see, the reconstruction, of a carriage-drive to the sands beyond that point, with bridges over the greater and lesser Don. By these means the "Island" was reached for a time, and the long lines of lake-beach on its southern side, eastward towards Scarborough Heights, and westward towards the Light-house and Gibraltar Point.

All the old accounts of York in the topographical dictionaries of "sixty years since," spoke of the salubrity of the peninsula which forms the harbour. Even the aborigines, it was added, had recourse to that spot for sanitary purposes. All this was probably derived from Surveyor-General Smyth's description of the locality accompanying the Map of Upper Canada, published in London by W. Faden, Charing Cross. That document sets forth that "the long beach or peninsula, which affords a most delightful ride, is considered so healthy by the Indians, that they resort to it whenever indisposed." But during the long interval from 1812 to 1835, no means of access to the healthy strand referred to existed, except by boat.

There were indeed two narrow necks, by which the long outer breakwater which forms the harbour was connected with the mainland; one to the east, the isthmus proper; the other, a sandy ridge some distance to the west, passing across from the peninsula to the shore, and dividing the included waters into two basins; Ashbridge's Bay, to the east; York Harbour, to the west. The sandy ridge in question was in a measure the product of the silt brought down by the Don, and thrown continually back by the waves in the bay after winds from

the west. Eastward, the same silt spread itself out and formed the marshes in that direction tending in fact to the filling up of Ashbridge's Bay, so long as that sheet of water remained and-locked. As rivers are often seen to do in similar circumstances, the Don, at the point where it was first about to enter the harbour, had taken a sudden bend and formed a long reach parallel with the sheet of water into which it finally discharged itself. Prior to 1812, a bridge had spanned the river here at its mouth, and a road practicable for vehicles had crossed it. On an early map of these parts, the road over the bridge is marked, "Road from York to the Light-house." Health alone, however, was not the object of wayfarers by that route. A race-course had been laid out on the westernmost isthmus of the peninsula, and races were periodically held there, twelve horses at a time being, as we have been assured, occasionally seen engaged in the contest. The hippodrome in question was not a ring, but a kind of long, straight, level stadium, extending from the south end of the second bridge to the margin of the lake. The invasion of 1813 had been for some time threatened. As a precautionary measure of defence, all the bridges in the direction of the Island were taken down. An earthwork was thrown up across the narrow ridge that separated the Don from the bay; and in addition, at the point where that river was first apparently about to enter the harbour, a trench was cut across, and the waters of the stream admitted into it. As years passed on, the new channel, at first comparatively insignificant, became, by a natural process, a deep and wide outlet, known as the Lesser Don, a convenient short-cut for skiffs and canoes from the bay into the river, and from the river into the bay. In the plan, above referred to, of the year 1811, there is no Little Don. A pond or inlet represents it, stretching in from the bay towards the river. A bridge spans this inlet. Another crosses the Don itself at its mouth. There is a bridge also over the ravine through which flows the rivulet by the Parliament Buildings. A block-house on the south-west bank of this stream guards the bridge.

After the return of peace, the absence of bridges, and the existence, in addition, of a second formidable water-filled moat, soon began to be matters of regret to the inhabitants of York, who found themselves so uncomfortably cut off from easy access to the peninsula. We learn from the *Upper Canada Gazette*, of April 15, 1822, published at York, that "a public subscription among the inhabitants had been entered into, to defray the expense of erecting two bridges on the River Don, leading from this town towards the south, to the Peninsula." And subjoined are the leading names of the place, guaranteeing various sums, in all amounting to £108 5s. The timber was presented by Peter Robinson, Esq., M.P.P. The estimated expense of the undertaking was £325. The following names appear for various sums—fifty, twenty, ten, five and two dollars:—Major Hillier, Rev. Dr. Strachan, Hon. J. H. Dunn, Hon. James Baby, Mr. Justice Boulton, John Small, Henry Boulton, Col. Coffin, Thomas Ridout, sen., W. Allan, Grant Powell, Samuel Ridout, J. S. Baldwin, S. Heward, James E. Small, Chas. Small, S. Washburn, W. J. Macaulay, G. Crookshank, A. Mercer, George Boulton, Thomas Taylor, Joseph Spragge, George Hamilton, R. E. Prentice, A. Warffe, W. B. Jarvis, B. Turquand, John Denison, sen., George Denison, John and George Monro, Henry Drear, Peter McDougall, Geo. Duggan, James Nation, Thomas Bright, W. B. Robinson, J. W. Gamble, William Proudfoot, Jesse Ketchum, D. Brooke, jun., R. C. Henderson, David Stegman, L. Fairbanks, Geo. Playter, Joseph Rogers, John French, W. Roe, Thomas Sullivan, John Hay, J. Biglow, John Elliott.

On the strength of the sums thus promised, an engineer, Mr. E. Angell, began the erection of the bridge over the Greater Don. The *Gazette* before us reports that it was being constructed "with hewn timbers, on the most approved *European* principle." (There is point in the italicised word: it hints the impolicy of employing United States engineers for such works.) The paper adds that "the one bridge over the Great Don, consisting of five arches, is in a forward state; and the other, of one arch, over the Little Don, will be completed in or before the month of July next, when this line of road will be opened." It is subjoined that "subscriptions will continue to be received by A. Mercer, Esq., J. Dennis, York, and also by the Committee, Thomas Bright, William Smith and E. Angell."

By the *Weekly Register* of June 19, in the following year, it appears that the engineer, in commencing the bridge, before the amount of its cost was guaranteed, had calculated without his host; and, as is usually the case with those who draw in advance on the proceeds of a supposed public enthusiasm, had been brought into difficulties. We accordingly find that "on Friday

evening last, pursuant to public notice given in the *Upper Canada Gazette*, a meeting of the subscribers, and other inhabitants of the town of York, was held at the house of Mr. Phair, in the Market-place, for the purpose of taking into consideration the circumstances in which the engineer had been placed by constructing a bridge, the charges of which were to be defrayed by voluntary subscriptions, over the mouth of the river Don." Resolutions were passed on the occasion, approving of Mr. Angell's proceedings, and calling for additional donations. A new committee was now appointed, consisting of H. J. Boulton, Esq., Dr. Widmer, S. Howard, Esq., Charles Small, Esq., and Allan McNab, Esq.—The editor of the *Weekly Register* (Fothergill,) thus notices the meeting: "It is satisfactory to find that there is at length some probability of the bridge over the Don in this vicinity being completed. We are, ourselves, the more anxious on this account, from the hope there is reason to entertain that these and other improvements in the neighbourhood will eventually lead to a draining of the great marsh at the east end of this town; for until that is done, it is utterly impossible that the place can be healthy at all seasons of the year. The public are not sufficiently impressed with the alarming insalubrity of such situations. We beg to refer our readers to a very interesting letter from Dr. Priestly to Sir John Pringle in the *Philosophical Transactions* for 1773; and another from Dr. Price to Dr. Horsley in the same work in 1774; both on this subject, which throw considerable light upon it. We have it in contemplation to republish these letters in this work, as being highly interesting to many persons, and applicable to various situations in this country, but particularly to the neighbourhood of York."

The desired additional subscriptions do not appear to have come in. The works at the mouth of the Don proper were brought to a stand-still. The bridge over the Lesser Don was not commenced. Thus matters remained for the long interval of ten years. Every inhabitant of York, able to indulge in the luxury of a carriage, or a saddle horse, or given to extensive pedestrian excursions, continued to regret the inaccessibility of the peninsula. Especially among the families of the military, accustomed to the surroundings of sea-coast towns at home, did the desire exist, to be able, at will, to take a drive, or a canter, or a vigorous constitutional on the sands of the peninsula, where, on the one hand, the bold escarpments in the distance to the eastward, on the other, the ocean-like horizon, and immediately in front the long rollers of surf tumbling in, all helped to stir recollections of (we will suppose) Dawlish or Torquay.

In 1834, through the intervention of Sir John Colborne, and by means of a subsidy from the military chest, the works on both outlets of the Don were re-commenced. In 1835 the bridges were completed. On the 22nd of August in that year they were handed over by the military authorities to the town, now no longer York, but Toronto. Some old-world formalities were observed on the occasion. The civic authorities approached the new structures in procession; a barricade at the first bridge arrested their progress. A guard stationed there also forbade further advance. The officer in command, Capt. Bonnycastle, appears, and the Mayor and Corporation are informed that the two bridges before them are, by the command of the Lieutenant-Governor, presented to them as a free gift, for the benefit of the inhabitants, that they may in all time to come be enabled to enjoy the salubrious air of the peninsula; the only stipulation being that the bridges should be free of toll forever to the troops, stores, and ordnance of the sovereign. The mayor, who, as eye-witnesses report, was arrayed in an official robe of purple velvet lined with scarlet, read the following reply: "Sir,—On the part of His Majesty's faithful and loyal city of Toronto, I receive at your hands the investiture of these bridges, erected by command of His Excellency the Lieutenant-Governor, and now delivered to the Corporation for the benefit and accommodation of the citizens. In the name of the Common Council and the citizens of Toronto, I beg you to convey to His Excellency the grateful feelings with which this new instance of the bounty of our most gracious sovereign is received; and I take this occasion on behalf of the city to renew our assurances of loyalty and attachment to His Majesty's person and government, and to pray, through His Excellency, a continuance of royal favour towards this city. I have, on the part of the corporation and citizens, to request you to assure His Excellency the Lieutenant-Governor that His Excellency's desire and generous exertions for the health and welfare of the inhabitants of this city are duly and gratefully appreciated; and I beg you to convey to His Excellency the best wishes of myself and my fellow-citizens for the health and happiness of His Excellency and family. Permit me, Sir, for myself and brethren,



to thank you for the very handsome and complimentary manner in which you have carried His Excellency's commands into execution." "Immediately," the narrative of this ceremonial continues, "the band, who were stationed on the bridge, struck up the heart-stirring air, 'God save the King,' during the performance of which the gentlemen of the Corporation, followed by a large number of the inhabitants, passed uncovered over the bridge. Three cheers were then given respectively for the King, for His Excellency the Lieutenant-Governor, for the Mayor and Council of the City of Toronto, and for Capt. Bonycastle. The gentlemanly and dignified manner in which both the addresses were read did credit to the gentlemen on whom these duties devolved; and the good order and good humour that prevailed among the spectators present were exceedingly gratifying." We take this account from the *Toronto Patriot* of August 28th, 1835, wherein it is copied from the *Christian Guardian*. Mr. R. B. Sullivan, the functionary who represented the city on the occasion just described, was the second mayor of Toronto. He was afterwards one of the Judges of the Court of Common Pleas. The bridges thus ceremoniously presented and received had a short-lived existence. They were, a few years afterwards, seriously damaged during the breaking up of the ice, and then carried away bodily in one of the spring freshets to which the Don is subject.

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#### NOVEMBER METEORS—1868.

We are informed by Professor Kingston, that some errors occur in the extract from the *Globe*, which appears on page 86 of our last number. The summary, there given should be as follows:—

Number of meteors counted at the Magnetic Observatory, Toronto, on the nights of November 13–14, 1867 and 1868:

	1867.	1868.
Before midnight .....	0	173
Midnight to 1 A.M. of November 14.....	20	329
1 A.M. to 2 " " .....	44	583
2 " 3 " " .....	123	489
3 " 4 " " .....	560	375
4 " 5 " " .....	1345	572
5 " 6 " " .....	195	365
Totals .....	2287	2586

## CANADIAN INSTITUTE.

### ANNUAL REPORT OF THE COUNCIL FOR THE YEAR 1867-'68.

The Council of the Canadian Institute have the honor to present the following Report of the proceedings of the Society for the past year, from 1st December, 1867, to the 30th November, 1868.

#### MEMBERSHIP.

The present state of Membership is as follows:

Members at commencement of Session, 1st December, 1867 .....	374
“ Elected during Session 1867-'68 .....	3
	377

#### *Deduct.*

Deaths .....	7
Withdrawn .....	12
Left the Province .....	2
Non-payment of subscription .....	2
	23
Total, 30th November, 1868 .....	354

#### *Composed of*

Honorary members .....	4
Life members .....	30
Corresponding members .....	5
Ordinary members .....	315
	354
Total .....	354

#### COMMUNICATIONS.

The following list of papers, read at the ordinary meetings held during the Session, will be found to contain many valuable communications:

7th December, 1867.—Rev. Prof. W. Hincks, F.L.S., &c., “On the Molluscous Animals.”

14th December, 1867 (*Medical Section*).—“Discussion on the subject of Ventilation, with especial reference to Public Buildings.”

21st December, 1867.—The Annual Report of the Council was read by the Secretary, and adopted.

Prof. D. Wilson, LL.D., “Philological enquiry into the progress of the early Anglo-Saxons in Maritime Art.”

11th January, 1868.—President Prof. H. Croft, D.C.L., read the Annual Address.

25th January, 1868.—Rev. Prof. W. Hincks, E.L.S., &c.—Continuation of his communication on “The Classification of Molluscous Animals.”

Hon. G. W. Allan “Exhibited the original document of the Articles of Capitulation of the Town of York (now Toronto), April, 1813. Signed

by General Dearborn and Commodore Chauncy for the United States, and by Lieutenant-Colonel Chewett, Major Allan and others, including the late Chief Justice Robinson, &c., on the part of the citizens and Canadian Militia."

- 1st February, 1868 (*Medical Section*).—Dr. J. Thorburn "Introduced the subject of Small-pox and its treatment, referring to the best mode of preventing pitting."
- Dr. Cumming read "Sir J. Y. Simpson's paper on Stamping out Small-pox."
- Dr. Ogden "Reported a case, A. B., a young woman *æt.* 22, who became anæmic about October last. The case is called 'What is it?'"
- 8th February, 1868.—A. E. Williamson, Esq., C.E., "The Tehuantepec route for a Railway across the Isthmus to the Pacific."
- 15th February, 1868 (*Medical Section*).—"A Discussion on the code of Ethics for the Medical Association of Ontario."
- 22nd February, 1868.—Prof. D. Wilson, LL.D., "Remarks on the wisdom of Government with regard to their treatment of the Indians."
- 29th February, 1868 (*Medical Section*).—"Further discussion and adoption of a code of Ethics."
- 7th March, 1868.—Prof. J. B. Cherriman, M.A., "On the recent Theories of the Sun."
- 21st March, 1868.—Prof. D. W' . LL.D., "Notice of dated traces of European Immigration to British America in the Seventeenth Century." Stone found by Mr. Haliburton at Port Royal, Nova Scotia, bearing date 1606, was exhibited.
- Prof. E. J. Chapman, Ph. D., "Gold assays critically considered."
- 28th March, 1868 (*Medical Section*).—Dr. Hodder, "Report of cases of Stone in the Bladder."
- 4th April, 1868.—Rev. J. McCaul, LL.D., "On Leaden Seals found in England, at Brough-on-Stanmore and Felixburgh in Suffolk, belonging to the time when the Romans occupied Britain; Fragment of tessellated pavement dug up near Chester; also an inscription found in Hadrian's Wall near Hexham—and one found at Caerleon, Monmouthshire."
- Rev. Dr. Scadding, "Exhibited a fragment of Brick taken from a Roman Wall at Verulam, St. Albans; also a Coin of Carausius."
- Mr. Williamson, "Exhibited a very interesting collection of Shells and native curiosities from Vera Cruz, and other places in Mexico."
- Professor Bell, from Nova Scotia, "Made some very interesting and instructive remarks on the Nova Scotia Gold Fields."
- Professor E. J. Chapman, Ph. D., "Announced his discovery of gold in some of the lead and copper ores of the north shore of Lake Superior."
- 11th April, 1868 (*Medical Section*).—"The subject of injuries to the Spine was discussed, by the several members present."
- 2nd May, 1868 (*Medical Section*).—Dr. Cumming, "Read a Paper containing ten clauses or propositions in regard to Hospital management and attendance."

(The Treasurer's Account, &c., will be published in our next number.)

MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO—JANUARY, 1868. Latitude—43° 39' 4" North. Longitude—5h. 17m. 33s. West. Elevation above Lake Ontario, 108 feet.

Table with columns: Day, Barom. at temp. of 32°, Temp. of the Air (6 A.M., 2 P.M., 10 P.M., M.P.M.), Excess of Mean above Normal, Tension of Vapour (5, 10 A.M., P.M., M.P.M.), Humidity of Air (6, 10 A.M., P.M., M.P.M.), Direction of Wind (C.A.M., 2 P.M., 10 P.M.), Resultant, Velocity of Wind (6 A.M., 2 P.M., 10 P.M., Res't), Rain in Inches, Snow in Inches.

REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR JANUARY, 1868. COMPARATIVE TABLE FOR JANUARY.

NOTE.—The monthly means do not incl. e-Sunday observations. The daily mean, exceeding those hat relate to the wind, are derived from six observations daily, namely at 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and results for the wind are from hourly observations.

Lowest Barometer . . . . . 30.146 at Midnight on 31st. } Monthly range=  
 Highest Barometer . . . . . 28.975 at 10 P. m. on 1st. } 1.170.  
 { Maximum temperature . . . . . 39° on 23rd. } Monthly range=  
 { Minimum temperature . . . . . -7° on 12th. } 46°  
 { Mean maximum temperature . . . . . 24°10. } Mean daily range=  
 { Mean minimum temperature . . . . . 11°85. } 12°25  
 { Greatest daily range . . . . . 30° from a.m. to p.m. of 10th.  
 { Least daily range . . . . . 2° from a.m. to p.m. of 24th.  
 Warmest day . . . . . 23-d...Mean temperature . . . 84°5 } Difference=31°90.  
 Coldest day . . . . . 27th...Mean temperature . . . 30°16 }  
 Maximum { Solar . . . . . 87° on 30th } Monthly range=101°8  
 { Terrestrial . . . . . -14°8 on 27th }  
 1840  
 1841  
 1842  
 1843  
 1844  
 1845  
 1846  
 1847  
 1848  
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 1850  
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 1853  
 1854  
 1855  
 1856  
 1857  
 1858  
 1859  
 1860  
 1861  
 1862  
 1863  
 1864  
 1865  
 1866  
 1867  
 1868

Aurora observed on 1 night, viz.: 21st.  
 Possible to see aurora on 10 nights; impossible on 21 nights.  
 Snowing on 21 days; depth, 14.6 inches; duration of fall, 114.0 hours.  
 Raining on 2 days; depth, unapp.; duration of fall, 2.6 hours.  
 Mean of cloudiness=0.77.  
 Most cloudy hour observed, 4 p.m.; mean, 0.84; least cloudy hour observed, 10 p.m.  
 mean, 0.74.  
 Sums of the components of the Atmospheric Current, expressed in Miles.  
 North. South. East. West.  
 1573.55 1927.75 1044.89 3077.80  
 Resultant direction, S. 83° W.; Resultant Velocity, 3.97.  
 Mean velocity, 8.90 miles per hour.  
 Maximum velocity, 26.5 miles, from noon to 1 p.m. of 9th.  
 Most windy day, 9th; mean velocity, 20.46 miles per hour  
 Least windy day, 27th; mean velocity, 3.31 miles per hour  
 Most windy hour, 8 a.m.; mean velocity, 9.58 miles per hour } Difference, 17.15 miles.  
 Least windy hour, 6 p.m.; mean velocity, 7.90 miles per hour } Difference, 1.68 miles.

7th. Lunar halo. 14th. Lunar halo.  
 21st. Solar halo. 27th. Solar halo.

YEAR.	TEMPERATURE.				RAIN.		SNOW.		WIND.		
	Mean.	Excess above Average.	Maxi. num.	Mini. num.	Range.	No. of Days.	Inches.	No. of days.	Inches.	Resultant. Direc- tion. city.	Mean Velocity.
1840	17.0	0	36.7	0	0	4	1.395	11	...	0	...
1841	25.6	+ 2.5	42.3	- 6.4	58.3	2	2.160	14	...	...	0.361lbs
1842	27.9	+ 4.8	49.4	- 1.0	47.5	6	2.170	9	...	...	0.78
1843	28.7	+ 5.6	55.4	- 1.8	57.2	5	4.295	12	14.2	...	0.69
1844	20.2	- 2.9	45.3	- 7.2	52.5	7	3.005	11	24.9	...	0.70
1845	20.5	+ 3.4	45.7	- 0.2	45.9	6	1mp	9	22.7	...	0.55
1846	26.7	+ 3.0	44.0	- 1.3	45.3	5	2.335	10	6.0	...	0.55
1847	23.3	+ 0.2	42.4	- 2.7	39.7	7	2.335	5	7.5	...	1.09
1848	28.7	+ 4.0	51.1	- 11.4	62.5	7	2.245	8	7.1	N 82 W	2.03
1849	18.5	- 4.0	39.5	- 14.2	53.7	4	1.175	10	9.2	N 63 W	3.06
1850	29.7	+ 4.0	46.4	- 9.9	36.5	6	1.250	8	5.2	N 37 W	0.69
1851	25.5	+ 2.4	43.4	- 12.8	55.2	4	1.275	10	7.8	S 77 W	3.26
1852	18.4	- 4.7	37.3	- 10.6	47.9	0	0.000	19	30.9	S 68 W	3.14
1853	23.0	+ 0.1	40.9	- 9.7	50.6	1	0.290	6	7.5	N 27 W	2.52
1854	23.5	+ 0.5	46.4	- 6.4	51.8	7	1.270	11	7.5	N 77 W	2.44
1855	25.9	+ 2.8	49.0	- 5.4	54.4	5	0.525	13	23.3	N 73 W	1.01
1856	16.0	- 7.1	34.4	- 12.0	46.4	0	0.000	14	13.6	N 75 W	5.24
1857	12.8	- 10.3	37.2	- 20.1	57.3	3	1mp	16	21.8	N 70 W	4.96
1858	30.0	+ 6.3	47.4	- 0.5	40.9	0	1.152	11	4.0	N 71 W	2.33
1859	26.4	+ 3.3	43.2	- 20.5	69.7	0	1.449	19	10.4	S 81 W	3.17
1860	23.4	+ 0.3	46.4	- 5.8	53.2	0	0.740	16	8.0	N 89 W	0.99
1861	10.9	- 3.2	37.0	- 11.2	48.2	4	0.685	23	20.6	N 86 W	2.92
1862	21.7	+ 1.4	44.5	- 2.6	47.1	5	0.115	19	27.4	N 26 W	2.56
1863	28.1	+ 5.0	47.0	- 14.0	61.0	10	1.122	17	20.6	N 61 W	1.13
1864	22.8	- 0.3	44.2	- 9.0	51.2	6	1.165	14	26.3	S 73 W	6.00
1865	17.7	- 4.4	37.2	- 9.0	46.2	1	0.440	18	14.8	N 85 W	4.80
1866	20.7	- 2.4	44.0	- 14.0	58.0	4	0.522	19	10.3	N 75 W	2.98
1867	17.6	- 4.5	43.8	- 4.8	48.6	1	1mp	21	42.0	N 55 W	3.27
1868	19.0	- 4.1	39.0	- 7.0	46.0	2	1mp	21	14.6	S 83 W	3.97
1869	23.08	.....	43.63	- 7.64	51.27	4.46	1.219	13.3	16.01	N 77 W	3.02
1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Excess for 1868	-4.08	.....	-4.63	+0.64	-5.27	-2.26	1.219	7.7	1.41	.....	0.80



REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR FEBRUARY, 1868.

NOTE.—The monthly means do not include Sunday observations. The daily means, excepting those that fall to the wind, are derived from six observations daily, namely at 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and resultants for the wind are from hourly observations.

Highest Barometer ..... 30.445 at 9 a.m. on 23rd } Monthly range = 1.316 inches.  
 Lowest Barometer ..... 23.129 at 6 a.m. on 6th }  
 Mean Temperature ..... 45.90 on 20th } Monthly range = 5.6°.  
 Maximum Temperature ..... -1.05 on 23rd } Mean daily range = 18.534  
 Minimum Temperature ..... 20.937 }  
 Mean Maximum Temperature ..... 8.233 }  
 Mean Minimum Temperature ..... 38.7 from a.m. to p.m. of 14th. }  
 Greatest daily range ..... 5.9° from a.m. to p.m. of 21st. }  
 Least daily range ..... 20.2 on 8th }  
 Warmest day ..... 20th. Mean Temperature ..... 39.12 }  
 Coldest day ..... 22nd. Mean Temperature ..... 29.38 }  
 Maximum { Solar ..... 108.90 on 10th } Monthly range = 34.50  
 Radiation. { Terrestrial ..... 20.2 on 8th } Monthly range = 128.2  
 Aurora observed on 3 nights, viz.: 19th, 20th, 21st.  
 Possible to see Aurora on 15 nights; impossible on 14 nights.  
 Snowing on 16 days; depth, 32.8 inches; duration of fall, 102.4 hours.  
 Raining on 1 day; depth 0.49 inches; duration of fall 3.0 hours.  
 Mean of Cloudiness = 0.66.  
 Most cloudy hour observed 4 p.m.; Mean = 0.72; least cloudy hour observed 10 p.m.; Mean = 0.57

Sums of the components of the Atmospheric Current, expressed in Miles.  
 North. 2634.24  
 South. 1503.61  
 East. 3403.87  
 West.

Resultant Direction N. 60° W.; Resultant Velocity 3.23.  
 Mean Velocity 10.84 miles per hour.  
 Maximum Velocity 34.5 miles, from 2.00 to 3.00 p.m. of 10th.  
 Most Windy day 23rd; Mean Velocity 23.80 miles per hour. } Difference 19.82 miles.  
 Least Windy day 7th; Mean Velocity 3.98 do }  
 Most Windy hour 1 p.m.; Mean Velocity 13.54 do } Difference 5.47 miles.  
 Least Windy hour 5 a.m.; Mean Velocity 3.07 do }  
 5th. Solar halo.  
 6th. Lunar halo. 7th. Lunar halo.  
 23rd. Solar halo.  
 24th a. 1 25th. Furious storm of wind and snow.  
 28th. Lunar halo.

COMPARATIVE TABLE FOR FEBRUARY.

YEAR.	TEMP. . . . .			RAIN.			SNOW.			WIND.	
	Mean	Excess above aver.	Range.	No. of days.	Inches.	No. of days.	Inches.	No. of days.	Inches.	Direction.	Velocity.
1841	28.0	+ 4.8	60.3	8	1.475	6	...	...	...	...	0.61 lbs
1841	22.4	+ 0.8	44.1	1	0.000	0	...	...	...	...	1.03
1842	26.0	+ 3.7	50.2	1	3.625	0	...	...	...	...	1.05
1843	14.5	+ 8.7	38.5	1	0.473	21	14.4	...	...	...	7.43
1844	26.0	+ 2.8	47.9	0	0.430	7	10.0	...	...	...	0.99
1845	26.0	+ 2.8	49.1	5	imper	0	19.0	...	...	...	0.65
1846	20.4	+ 2.8	41.9	1	0.000	13	46.1	...	...	...	0.60
1847	21.5	+ 1.7	40.9	0	0.550	13	27.3	...	...	...	5.69 m.
1848	26.6	+ 3.1	46.6	4	0.775	8	10.8	...	...	...	2.58
1849	19.5	+ 3.7	40.6	4	0.248	13	19.2	...	...	...	1.48
1850	26.0	+ 2.8	49.0	2	1.235	9	23.1	...	...	...	3.43
1851	27.6	+ 4.4	50.2	7	2.600	4	2.4	...	...	...	1.99
1852	23.4	+ 0.2	41.2	8	0.650	11	13.0	...	...	...	6.94
1853	24.1	+ 0.9	43.4	4	1.034	15	12.6	...	...	...	3.34
1854	21.1	+ 2.1	42.8	5	1.460	15	18.0	...	...	...	7.30
1855	15.4	+ 7.8	39.0	2	1.776	14	21.8	...	...	...	1.73
1856	15.7	+ 7.5	37.3	2	0.000	8	9.7	...	...	...	4.34
1857	28.6	+ 5.3	52.4	11	3.050	11	16.7	...	...	...	7.70
1858	17.0	+ 6.2	42.4	3	inapp	10	21.7	...	...	...	3.68
1859	26.0	+ 2.8	46.2	2	1.1	6	0.456	...	...	...	9.82
1860	22.8	+ 2.9	46.0	7	1.336	13	18.8	...	...	...	3.22
1861	25.1	+ 2.9	46.0	4	0.581	8	8.3	...	...	...	0.12
1862	22.5	+ 0.7	37.8	3	0.818	17	29.7	...	...	...	2.72
1863	22.4	+ 0.8	41.5	3	0.180	17	23.1	...	...	...	8.55
1864	24.3	+ 1.1	45.0	3	1.450	12	22.0	...	...	...	3.27
1865	22.4	+ 0.8	42.2	5	0.307	14	9.5	...	...	...	10.13
1866	22.5	+ 0.7	45.0	2	0.810	11	16.8	...	...	...	10.11
1867	22.5	+ 5.7	44.0	3	0.830	12	10.9	...	...	...	8.23
1867	28.2	+ 5.7	44.0	1	1.328	13	13.4	...	...	...	5.14
1868	17.2	+ 6.0	45.0	8	0.040	16	32.8	...	...	...	8.85
Results to 1867.	23.16	...	44.53	4.29	0.909	11.93	17.77	...	...	...	3.00
Excess for 1868.	5.98	+ 0.47	4.18	4.65	3.20	4.07	15.03	...	...	...	2.42

MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO, —MARCH, 1868.

Latitude—43° 39' 4" North. Longitude—8h. 17m. 33s. West. Elevation above Lake Ontario, 108 feet.

Table with columns: Day, Barom. at temp. of 32° (6 A.M., 10 P.M., Mean), Temp. of the Air (6 A.M., 2 P.M., 10 P.M., M.F.N.), Excess of Mean above Normal, Tension of Vapour (6 A.M., 2 P.M., 10 P.M., M'N), Humidity of Air (6 A.M., 2 P.M., 10 P.M., M'N), Direction of Wind (6 A.M., 2 P.M., 10 P.M.), Resultant, Velocity of Wind (6 A.M., 2 P.M., 10 P.M., P.M., S.W., M'N), Rain in inches, Snow in inches.



REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR MARCH, 1886. COMPARATIVE TABLE FOR MARCH.

YEAR.	TEMPERATURE.				RAIN.			SNOW.			WIND.	
	Mean.	Excess above average.	Maxim. in mm.	Minim. in mm.	Range.	No. of days.	Inches.	No. of days.	Inches.	Direction.	Resultant.	Mean Velocity.
1840	33.3	+ 3.5	58.6	9.2	49.4	8	1.640	8	1.640	0	...	0.51 lbs
1841	27.7	+ 2.1	54.0	-6.7	61.3	5	1.170	7	1.170	...	...	0.70
1842	35.8	+ 6.0	70.3	16.1	65.2	4	3.622	18	25.7	...	...	1.18
1843	21.3	+ 8.5	39.9	-2.5	42.4	8	41.2	8	14.0	...	...	0.57
1844	31.3	+ 5.6	50.8	9.6	41.2	5	map	6	map	...	...	0.68
1845	35.4	+ 5.6	62.7	6.6	56.1	5	map	5	map	...	...	0.30
1846	33.1	+ 8.3	49.6	8.8	41.3	9	1.966	5	2.3	...	...	0.80
1847	26.2	+ 3.6	43.0	6.8	38.3	5	0.856	6	4.2	...	...	0.71
1848	28.6	+ 1.2	58.0	0.0	58.0	5	1.226	6	9.7	N 06 W	2.03	5.80mls
1849	33.5	+ 3.7	53.0	16.1	37.9	7	1.525	2	2.3	N 3 W	1.48	5.37
1850	29.8	+ 0.0	46.5	7.2	39.3	2	0.745	7	11.2	N 52 W	2.62	7.62
1851	32.4	+ 2.0	59.3	12.0	47.3	3	0.770	8	8.8	N 21 W	1.93	7.65
1852	27.7	+ 2.1	44.8	-7.4	52.2	8	3.086	12	19.5	N 8 W	0.71	5.81
1853	30.6	+ 0.8	56.3	0.0	56.3	9	1.050	8	7.1	N 58 W	2.60	5.96
1854	30.7	+ 0.9	55.1	7.4	47.7	9	2.425	3	2.8	N 53 W	3.39	8.03
1855	23.6	+ 1.3	49.4	-2.9	52.3	5	1.458	11	18.1	N 88 W	4.76	9.95
1856	27.8	+ 0.7	41.4	-14.0	55.4	4	0.000	12	16.2	N 71 W	7.68	11.39
1857	27.8	+ 2.0	57.6	-5.5	63.1	4	0.335	15	11.3	N 63 W	6.63	10.84
1858	28.4	+ 1.4	55.4	-5.5	60.9	10	0.917	6	0.2	N 58 W	5.45	8.56
1859	36.3	+ 6.5	54.2	9.8	44.4	15	4.054	8	1.0	N 64 W	1.96	10.39
1860	34.5	+ 4.7	67.0	12.8	54.2	5	0.882	11	2.4	N 64 W	7.61	12.41
1861	29.9	+ 2.9	47.4	-5.2	52.6	8	2.125	14	7.1	N 54 W	4.33	10.56
1862	28.8	+ 1.0	43.2	8.0	35.8	2	5.566	11	18.5	N 12 W	2.50	9.38
1863	25.8	+ 4.0	42.2	-4.0	46.2	4	0.687	17	11.4	N 27 W	2.62	9.27
1864	29.1	+ 0.7	50.2	3.0	47.2	9	1.620	12	3.7	N 53 W	2.29	8.41
1865	33.6	+ 3.8	55.6	-3.5	59.1	10	3.050	12	18.9	N 61 W	2.16	8.80
1866	27.6	+ 2.2	45.8	7.6	38.3	8	1.915	18	7.2	N 73 W	6.84	11.51
1867	26.6	+ 3.2	46.8	3.0	43.4	6	0.617	14	33.4	N 34 W	2.12	8.52
1868	31.3	+ 1.5	59.0	-15.6	74.6	7	2.686	5	4.2	N 21 W	2.12	8.58
Results to 1867.	29.80	...	52.15	2.96	49.19	6.36	1.691	9.86	10.39	N 58 W	3.38	8.81
Excess for '86.	+ 1.50	...	+ 6.95	+ 18.56	+ 25.41	+ 0.61	+ 1.068	+ 8.6	+ 6.19	...	...	0.23

Note.—The monthly means do not include Sunday observations. The day means, excepting those that relate to the wind, are derived from six observations daily, namely, at 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and resultants for the wind are from hourly observations.

Lowest Barometer ..... 30.274 at noon on 11th } Monthly range = 1.225 inches.  
 ..... 29.049 at 2 p.m. on 17th }  
 { Maximum Temperature ..... 59.0 on 30th } Monthly range = 7.4° F.  
 { Minimum Temperature ..... -15.0 on 3rd }  
 { Mean Maximum Temperature ..... 39.0 } Mean daily range = 16.0° F.  
 { Mean Minimum Temperature ..... 23.0 }  
 { Greatest daily range ..... 34.0 from a.m. to p.m. of 5th.  
 { Least daily range ..... 4.3 from a.m. to noon of 11th.

Warmest Day ..... 17th. Mean Temperature ..... 47.938 } Difference = 49.71  
 Coldest Day ..... 3rd. Mean Temperature ..... 29.833 }  
 Maximum { Solar ..... 100.08 on 31st } Monthly range = 129.3  
 Radiation. { Terrestrial ..... 25.05 on 3rd }

Aurora observed on 10 nights, viz.:—18th, 19th, 20th, 21st, 23rd, 24th, 25th, 26th, 30th and 31st.

Possible to see Aurora on 18 nights; impossible on 13 nights.  
 Snowing on 5 days; depth 4.2 inches; duration of fall 16.0 hours.  
 Raining on 7 days; depth 2.660 inches; duration of fall 54.0 hours.  
 Mean of Cloudiness = 0.58.  
 Most cloudy hour observed 4 p.m.; Mean, 0.55; least cloudy hour, 6 a.m.; Mean, 0.53.

Sums of the components of the Atmospheric Current, expressed in Miles.  
 North. East. West.  
 2612.69 1958.9 2917.14

Resultant Direction N. 21° W.; Resultant Velocity 2.12.  
 Mean Velocity 8.68 miles per hour.  
 Maximum Velocity 36.5 miles, from 7 to 8 a.m. of 21st.  
 Most Windy day 21st; Mean Velocity 28.03 miles per hour.  
 Least Windy day 9th; Mean Velocity 1.37 miles per hour. } Difference 27.26 miles.  
 Most Windy hour, Noon; Mean Velocity 11.22 miles per hour. }  
 Least Windy hour 6 p.m.; Mean Velocity 0.64 miles per hour. } Difference 4.68 miles.

7th March. Dense fog. 9th. Solar halo. 11th. Lunar halo. 13th. Dense fog.  
 17th. Thunder storm during morning, accompanied by a shower of hail, and, for a few minutes, by a most furious gust of wind, causing a considerable amount of damage to the more exposed and temporary buildings in the southern portion of the city.  
 21st. Very stormy day, high keen wind.  
 14th. Robins seen. 17th. Blue birds seen.

METEOROLOGICAL REGISTER.

MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO,—APRIL, 1868.  
 Latitude—43° 39' 4" North. Longitude—81° 17m. 33s. West. Elevation above Lake Ontario, 108 feet

Day	Barom. at temp. of 32°.			Temp. of the Air.			Excess of Mean above Normal.			Tension of Vapour.			Humidity of Air.			Direction of Wind.			Resultant.	Velocity of Wind.				Rain in Inches.	Rain in Inches.				
	O.A.M.	10 P.M.	Mean.	O.A.M.	2 P.M.	10 P.M.	O.	+	-	6 A.M.	2 P.M.	10 P.M.	6 A.M.	2 P.M.	10 P.M.	6 A.M.	2 P.M.	10 P.M.		6 A.M.	2 P.M.	10 P.M.	10 P.M.			MEAN			
																											6	2	10
1	29.338	29.207	29.3203	32.7	31.9	32.4	0	43.2	46.85	+10.02	157	179	208	292	84	32	74	65	Calm	NW	W	NNW	N34W	0.0	19.0	7.76	9.03	...	...
2	...	...	...	...	...	...	0	26.0	32.02	-4.02	144	122	098	124	63	63	67	64	NW	WN	W	WN	N41W	6.0	15.2	3.0	8.89	...	...
3	...	...	...	...	...	...	0	31.8	31.88	-5.13	098	111	129	114	70	48	73	67	Calm	SE	W	WN	S51W	0.0	7.0	6.2	3.08	...	...
4	...	...	...	...	...	...	0	21.5	25.80	-11.53	107	133	095	108	73	60	82	77	W	S	W	NW	S61W	0.8	5.2	24.0	7.36	...	...
5	...	...	...	...	...	...	0	32.4	29.07	-0.62	078	088	116	101	69	60	62	63	NW	W	W	W	S49W	3.8	19.0	3.8	8.08	...	...
6	...	...	...	...	...	...	0	28.4	31.00	-7.42	100	174	134	152	93	86	85	87	Calm	W	W	W	S48W	0.0	15.0	3.8	6.32	...	...
7	...	...	...	...	...	...	0	10.4	22.95	-15.77	104	062	068	080	86	38	65	62	E	NE	W	WN	N38W	2.0	1.0	5.0	2.33	...	...
8	...	...	...	...	...	...	0	24.1	24.85	-14.18	072	081	088	082	74	49	65	62	Calm	W	W	W	S68W	7.0	0.85	7.6	17.49	...	...
9	...	...	...	...	...	...	0	38.1	35.78	-3.95	129	165	210	175	88	51	88	83	W	E	W	WN	S86W	12.4	9.0	2.3	5.40	...	...
10	...	...	...	...	...	...	0	30.2	30.2	-0.00	003	003	106	106	80	37	70	60	E	N	W	NW	N11W	22.0	10.2	8.9	11.40	...	...
11	...	...	...	...	...	...	0	27.7	29.90	-10.53	105	079	106	106	80	80	80	80	NW	S	E	W	S27E	2.3	0.5	3.6	4.32	...	...
12	...	...	...	...	...	...	0	38.9	37.33	-3.40	160	150	228	181	80	62	96	80	R	E	W	SE	S89E	8.0	13.0	2.8	6.91	...	...
13	...	...	...	...	...	...	0	46.4	45.07	+4.92	237	318	259	374	92	64	82	75	E	E	E	S	S45E	6.6	12.2	2.6	5.49	...	...
14	...	...	...	...	...	...	0	37.8	34.55	+1.80	223	208	165	200	83	67	72	70	S	W	W	S	S39W	11.5	23.4	7.6	15.27	...	...
15	...	...	...	...	...	...	0	36.3	38.92	-3.05	131	098	157	124	66	31	74	55	W	W	W	W	S73W	13.5	23.5	15.6	17.10	...	...
16	...	...	...	...	...	...	0	37.8	34.80	-1.93	229	230	100	209	96	63	84	82	W	W	W	W	S24W	18.0	21.0	6.4	10.90	...	...
17	...	...	...	...	...	...	0	49.7	39.41	-2.98	176	207	210	204	81	71	87	78	E	W	W	E	S79E	3.2	0.8	3.3	4.79	...	...
18	...	...	...	...	...	...	0	36.3	35.1	-1.76	217	215	186	148	56	50	69	64	N	W	W	N	S65W	9.0	6.8	1.5	2.41	...	...
19	...	...	...	...	...	...	0	36.7	39.33	-5.68	184	168	171	171	75	61	78	71	N	W	W	N	S55W	10.7	15.4	8.0	9.17	...	...
20	...	...	...	...	...	...	0	44.3	41.38	-4.02	168	194	239	211	85	68	92	88	E	E	E	E	S79E	2.2	4.2	0.8	2.47	...	...
21	...	...	...	...	...	...	0	46.4	46.05	-0.32	190	310	301	277	68	68	85	80	E	E	E	E	S79E	3.7	11.0	8.2	10.58	...	...
22	...	...	...	...	...	...	0	39.0	40.92	+3.87	272	327	206	275	73	67	84	75	E	E	E	E	S79E	15.4	9.5	4.4	6.05	...	...
23	...	...	...	...	...	...	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	7.6	26.0	14.0	11.92	...	...
24	...	...	...	...	...	...	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	7.6	26.0	14.0	11.92	...	...
25	...	...	...	...	...	...	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	7.6	26.0	14.0	11.92	...	...
26	...	...	...	...	...	...	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	7.6	26.0	14.0	11.92	...	...
27	...	...	...	...	...	...	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	7.6	26.0	14.0	11.92	...	...
28	...	...	...	...	...	...	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	7.6	26.0	14.0	11.92	...	...
29	...	...	...	...	...	...	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	7.6	26.0	14.0	11.92	...	...
30	...	...	...	...	...	...	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	7.6	26.0	14.0	11.92	...	...
Mean	29.6316	29.5669	29.572	33.3384	32.7538	32.404	0	35.5	35.58	-2.95	159	170	171	170	80	66	78	71	W	W	W	N	S60W	6.49	13.39	6.60	9.240	...	...

REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR APRIL, 1868.

COMPARATIVE TABLE FOR APRIL.

YEAR	TEMPERATURE.				RAIN.			SNOW.			WIND.		
	Mean.	Excess above Average.	Maxi. mum.	Mini. mum.	Range.	No. of days.	Inches.	No. of days.	Inches.	Resultant Direc- tion.	Mean Velocity.		
												No. of days.	Inches.
1840	42.4	+ 1.3	68.7	22.8	45.0	14	3.420	2	...	o	...	...	0.51 lbs.
1841	30.2	+ 1.9	64.8	18.9	44.9	3	1.370	3	...	...	...	...	0.57
1842	43.7	+ 2.6	89.8	20.1	69.7	8	3.740	3	...	...	...	...	0.46
1843	40.9	+ 0.2	71.6	14.7	69.9	7	3.185	2	0.1	Imp.	...	...	1.00
1844	47.5	+ 0.4	74.6	14.9	69.7	11	1.615	4	1.5	...	...	...	0.24
1845	42.1	+ 1.0	66.7	15.5	61.2	11	3.280	4	1.5	...	...	...	1.00
1846	44.0	+ 2.9	81.8	24.2	57.6	10	1.800	2	1.3	...	...	...	0.56
1847	39.2	+ 8.1	65.1	9.3	56.8	5	2.870	2	4.0	...	...	...	0.59
1848	41.3	+ 0.2	66.1	22.7	42.4	6	1.455	1	0.6	...	...	...	4.89 miles.
1849	39.0	- 2.1	72.0	15.5	56.5	10	2.655	2	1.7	N 77 W	1.46	...	7.50
1850	37.9	- 3.2	65.7	18.0	47.7	7	4.720	2	1.1	N 39 W	3.14	...	7.64
1851	41.3	+ 0.2	59.3	25.8	83.5	11	2.295	3	1.2	N 14 E	2.52	...	8.07
1852	38.2	- 2.9	53.8	29.0	33.8	6	1.990	4	9.4	N 23 E	2.44	...	6.68
1853	41.0	+ 0.8	65.7	25.0	40.7	10	2.625	1	1.0	N 12 W	1.95	...	5.20
1854	41.0	+ 0.1	64.5	20.2	44.3	12	2.685	4	2.7	N 50 E	2.57	...	6.81
1855	42.4	+ 1.3	69.4	10.7	58.7	8	2.030	3	1.6	N 36 W	3.99	...	7.57
1856	42.3	+ 1.2	72.2	14.2	58.0	13	2.780	3	0.1	N 23 E	1.64	...	6.05
1857	35.4	+ 5.7	52.0	6.9	46.1	10	1.755	11	12.9	N 60 W	4.15	...	10.24
1858	39.5	+ 0.6	65.2	21.8	43.4	13	1.642	2	0.1	N 14 W	1.64	...	9.57
1859	41.5	+ 1.6	61.8	22.6	42.2	9	2.527	5	1.2	N 37 W	2.33	...	10.79
1860	39.5	- 1.6	61.8	19.5	42.3	11	1.282	8	0.3	N 36 W	4.10	...	10.30
1861	42.0	+ 0.9	67.0	23.8	43.2	12	1.610	4	6.9	N 37 E	2.31	...	8.90
1862	39.6	+ 1.5	68.0	14.5	53.5	10	2.235	4	0.2	N 50 E	2.48	...	9.77
1863	42.0	+ 0.9	69.0	8.6	60.4	8	2.210	3	3.63	N 14 E	3.75	...	9.20
1864	40.9	+ 0.2	59.4	28.1	31.1	16	3.683	3	3.5	N 41 E	3.39	...	7.77
1865	43.1	+ 2.0	62.5	23.0	39.9	17	3.972	6	2.0	N 84 W	2.11	...	8.39
1866	43.9	+ 2.8	71.0	25.4	42.5	7	1.675	2	Imp	N 42 W	3.34	...	7.89
1867	39.5	- 1.6	65.5	28.4	40.1	12	2.147	5	7.2	N 51 W	2.68	...	7.89
1868	38.0	- 3.1	64.0	9.2	64.8	7	0.990	10	5.3	N 63 W	2.43	...	9.24
Results to 1867	41.09	.....	67.03	19.11	47.92	9.92	2.451	3.43	2.48	N 15 W	2.03	...	8.06
Exe. for 1868.	-3.05	.....	-3.08	-9.91	+6.88	2.92	1.461	6.57	2.82	...	...	...	1.18

NOTE.—The monthly means do not include Sunday observations. The daily means, excepting those that relate to the wind, are derived from six observations daily, namely, at 8 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and resultants for the wind are from hourly observations.

Highest Barometer . . . . . 30.097 at 8 a.m. on 24th. } Monthly range = 1.35 inches.  
 Lowest Barometer . . . . . 28.962 at 6 a.m. on 16th. }  
 Maximum temperature . . . . . 64° on 15th } Monthly range = 54° 8  
 Minimum temperature . . . . . 9°-2 on 5th }  
 Mean maximum temperature . . . . . 46° 13 } Mean daily range = 16° 38  
 Mean minimum temperature . . . . . 29° 74 }  
 Greatest daily range . . . . . 31° 1 from a.m. to p.m. of 1st.  
 Least daily range . . . . . 6° 0 from a.m. to p.m. of 27th.  
 Warmest day . . . . . 15th...Mean temperature . . . . . 60° 57 } Difference = 27° 02.  
 Coldest day . . . . . 8th...Mean temperature . . . . . 23° 95 }  
 Maximum { Solar . . . . . 116° 0 on 1st } Monthly range = 118° 5  
 Radiation { Torrest.fal. . . . . 2° 5 on 5th }  
 Aurora observed on 6 nights, viz.:—  
 Possible to see Aurora on 20 nights; impossible on 10 nights.  
 Snowing on 10 days; depth, 6.3 inches; duration of fall, 32.9 hours.  
 Raining on 7 days; depth, 0.950 inches; duration of fall, 21.2 hours.  
 Mean of cloudiness = 0.02. Most cloudy hour observed, 4 p.m.; mean, 0.75; least do, do, 10 p.m.; mean, 0.51.

Sums of the components of the Atmospheric Current, expressed in Miles.

North.	2096.61	South.	1350.84
		East.	1477.0
		West.	2930.78

Resultant direction, N. 63° W.; resultant velocity, 2.43.  
 Mean velocity, 9.24 miles per hour.  
 Maximum velocity, 38.0 miles, from 2 to 3 p.m. of 8th.  
 Most windy day, 17th; mean velocity, 18.42 miles per hour. } Difference, 15.26 miles.  
 Least windy day, 24th; mean velocity, 3.16 miles per hour. }  
 Most windy hour, noon; mean velocity, 13.39 miles per hour. }  
 Least windy hour, 4 a.m.; mean velocity, 5.96 miles per hour. } Difference 7.43 miles.

4th. Solar halo, a.m. 6th. Solar halo. 9th. Solar halo, Lunar halo.  
 10th. Solar halo. 18th. Fine parhelia and secondary circle the colors of which were intensely bright at 6.30 a.m.  
 24th. Solar halo. 26th. Solar halo. 27th. Solar halo.  
 Immense flock of pigeons about the middle of month.  
 6th. First steamer sailed. 16th. Frogs croaking. 30th. Swallows appearing.

MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO—MAY, 1868.

Latitude—43° 39' 4 North. Longitude—81, 17m. 33s. West. Elevation above Lake Ontario, 108 feet.

Table with columns: Barom. at temp. of 32°, Temp. of the Air, Excess of Mean above Normal, Tension of Vapour, Humidity of Air, Direction of Wind, Resultant, Velocity of Wind, In Rain, In Snow. Rows are numbered 1 to 31, with a summary row M at the bottom.



MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO, —JUNE, 1868.  
 Latitude—43° 39'4 North. Longitude—81° 17m. 33s. West. Elevation above Lake Ontario, 108 feet

Day	Barom. at temp. of 32°.			Temp. of the Air.			Tension of Vapour.			Humidity of Air.			Direction of Wind.			Velocity of Wind.			Rain Inches	Fog Inches			
	6 A.M.	10 P.M.	Mean.	6 A.M.	2 P.M.	10 P.M.	6 A.M.	10 P.M.	Mean.	6 A.M.	10 P.M.	Mean.	6 A.M.	2 P.M.	10 P.M.	6 A.M.	2 P.M.	10 P.M.					
																					Excess of Mean Above Normal.		
1	29.732	29.687	29.685	50.4	58.0	51.8	320	382	298	315	80	68	72	Calm	Calm	0.0	0.0	13.4	5.76	0.39	0.010		
2	780	740	787	48.6	68.0	60.5	221	275	262	253	64	70	64	N E	N E	8.1	0.5	5.0	0.77	6.13	...		
3	824	811	786	47.2	54.0	62.0	239	251	230	241	59	60	62	N E	N E	4.2	10.8	6.4	7.31	7.64	...		
4	709	817	713	52.0	60.5	67.6	349	395	342	363	87	74	72	E	E	2.2	7.4	7.8	2.92	4.90	4.40		
5	608	601	640	51.8	60.5	57.8	375	450	422	427	97	80	95	E	E	0.0	2.4	7.2	2.09	4.90	8.25		
6	608	601	640	51.8	60.5	57.8	375	450	422	427	97	80	95	E	E	0.0	2.4	7.2	2.09	4.90	8.25		
7	802	805	805	40.2	64.1	61.1	417	409	280	404	79	76	84	S W	N W	6.8	4.4	17.2	6.18	9.03	5.40		
8	829	746	757	48.6	63.7	62.2	253	312	312	312	79	78	79	Calm	S E	0.0	12.8	11.0	2.15	7.05	0.20		
9	803	811	826	48.6	60.2	60.4	231	300	257	297	82	68	69	N W	N W	4.0	0.8	9.0	1.68	4.35	...		
10	803	811	826	48.6	60.2	60.4	231	300	257	297	82	68	69	N W	N W	4.0	0.8	9.0	1.68	4.35	...		
11	854	811	703	51.1	60.8	49.3	277	347	303	310	82	67	80	E	E	2.8	8.0	1.8	1.19	4.21	...		
12	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
13	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
14	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
15	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
16	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
17	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
18	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
19	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
20	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
21	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
22	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
23	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
24	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
25	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
26	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
27	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
28	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
29	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
30	803	843	689	57.2	69.1	60.8	260	315	283	293	81	61	67	N E	N E	1.0	0.4	1.8	2.00	4.40	...		
Mean	29.677	29.650	29.640	57.6	69.0	61.0	305	475	386	422	80	68	76	74	74	68	76	74	68	76	74	5.26	2.217

REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR JUNE, 1868. COMPARATIVE TABLE FOR JUNE.

NOTE.—The monthly means do not include Sunday observations. The daily means, excepting those that relate to the wind, are derived from the observations taken at 8 A. M., 8 P. M., 4 P. M., 10 P. M., and midnight. The means and resultants for the wind are from hourly observations.

Highest Barometer . . . . . 29.921 at 8 a.m. on 10th. } Monthly range =  
 Lowest Barometer . . . . . 29.274 at 10 p.m. on 19th. } 0.647 inches.  
 Maximum temperature . . . . . 84°2 on 18th } Monthly range = 4°2  
 Minimum temperature . . . . . 38°0 on 10th }  
 Mean maximum temperature . . . . . 70°00 } Mean daily range = 18°25  
 Mean minimum temperature . . . . . 52°32 }  
 Greatest daily range . . . . . 27°2 from a.m. to p.m. of 12th.  
 Least daily range . . . . . 10°0 from a.m. to p.m. of 21st.  
 Warmest day . . . . . 10th. Mean temperature . . . . . 72°70 } Difference = 21°77.  
 Coldest day . . . . . 9th. Mean temperature . . . . . 56°93 }  
 Maximum { Solar . . . . . 104°9 on 18th } Monthly range = 77°0.2  
 Radiation { Terrestrial. . . . . 26°8 on 10th }  
 Aurora observed on 4 nights, viz.:—7th, 10th, 16th and 17th.  
 Possible to see Aurora on 10 nights; impossible on 11 nights.  
 Raining on 11 days; depth, 2.217 inches; duration of fall, 30.7 hours.  
 Mean of cloudiness = 0.51. Most cloudy hour observed, 2 p.m.; mean, 0.60; least do., do.,  
 10 p.m.; mean, 0.30.

Sums of the components of the Atmospheric Current, expressed in Miles.

North. . . . . 1092.61  
 South. . . . . 1074.25  
 East. . . . . 1080.37  
 West. . . . . 910.85

Resultant direction, N. 16° E.; resultant velocity, 0.85.  
 Mean velocity, 5.26 miles per hour.  
 Maximum velocity, 19.5 miles, from 7 to 8 p.m. of 6th.  
 Most windy day, 20th; mean velocity, 9.48 miles per hour. } Difference, 0.90 miles.  
 Least windy day, 30th; mean velocity, 2.49 miles per hour. }  
 Most windy hour, 2 p.m.; mean velocity, 7.38 miles per hour. } Difference, 4.01 miles.  
 Least windy hour, 4 a.m.; mean velocity, 3.37 miles per hour. }

6th. Thunder storm during afternoon, and again during night.  
 11th. Solar halo. 15th. Thunder storm. 23rd. Thunder storm.  
 28th. Lunar halo.  
 Fog recorded on four occasions. Dew on ten mornings.  
 8th. Ice 0.2 of an inch said to have been seen in Toronto this morning.

YEAR.	TEMPERATURE.					RAIN.			WIND.		
	Mean.	Excess above Average.	Maxi. mum.	Mini. mum.	Range.	No. of days.	Inches.	No. of days.	Inches.	Resultant Direc- tion.	Mean Velocity.
1840	59.8	-1.7	79.9	36.7	43.2	11	4.800	...	...	...	...
1841	65.0	+4.1	93.1	45.3	47.8	19	1.560	...	...	...	0.36 lbs.
1842	65.0	-5.9	80.2	28.1	52.1	16	6.766	...	...	...	0.31
1843	68.4	-3.1	83.3	28.2	55.1	12	4.695	...	...	...	0.19
1844	69.9	-1.6	83.3	33.2	50.1	11	3.696	...	...	...	0.27
1845	61.0	-0.5	84.0	38.5	46.1	11	3.715	...	...	...	0.32
1846	63.3	+1.8	84.2	30.1	45.1	10	1.920	...	...	...	0.80
1847	68.4	+3.1	77.8	36.7	41.1	14	2.625	...	...	...	...
1848	62.9	+1.4	92.0	37.4	54.6	8	1.810	...	...	N 61 W	1.90
1849	63.2	+1.7	84.4	35.2	49.2	7	2.020	...	...	S 71 E	0.49
1850	64.3	+2.8	86.6	34.2	51.4	10	3.845	...	...	S 60 W	0.38
1851	69.2	-2.3	79.2	37.0	42.2	11	2.695	...	...	S 2 W	1.29
1852	60.8	-0.7	86.1	37.2	48.9	10	3.160	...	...	S 76 W	1.49
1853	65.5	+4.0	89.5	39.2	50.3	9	1.550	...	...	N 1 W	0.10
1854	64.1	+1.0	92.5	35.2	57.3	9	1.460	...	...	N 24 E	0.71
1855	69.9	+1.0	91.5	36.2	56.3	17	4.070	...	...	N 69 W	1.33
1856	62.1	+0.0	89.2	42.0	47.2	18	3.200	...	...	S 21 W	0.90
1857	66.9	+4.7	76.0	35.0	41.2	21	5.000	...	...	N 40 W	1.16
1858	68.2	+3.2	90.2	42.5	47.7	12	2.943	...	...	S 20 E	0.25
1859	68.3	+3.2	86.4	32.2	54.2	16	4.085	...	...	S 77 W	1.05
1860	63.2	+1.7	81.6	40.2	32.4	14	2.186	...	...	N 44 W	3.13
1861	61.3	+2.0	87.8	41.6	46.2	13	2.829	...	...	N 39 W	2.29
1862	60.5	-1.0	85.4	39.4	46.0	10	1.007	...	...	N 20 W	1.77
1863	63.1	-1.4	84.8	37.4	47.4	13	1.662	...	...	N 50 W	2.26
1864	63.0	+1.5	93.4	34.8	58.6	6	0.570	...	...	N 56 W	1.72
1865	64.5	+3.0	90.5	43.0	47.2	7	2.005	...	...	S 30 W	0.60
1866	60.2	+1.3	90.5	40.0	50.5	15	2.720	...	...	S 15 W	0.71
1867	64.3	+2.8	88.0	44.0	44.6	8	0.885	...	...	S 84 E	0.48
1868	62.0	+0.5	84.2	38.0	46.2	11	2.217	...	...	N 10 E	0.56
Results 1867.	61.62	.....	86.12	37.80	48.32	11.59	2.700	...	...	N 64 W	0.80
Ex. for 1868.	+0.48	.....	-1.92	+0.20	+2.12	0.39	0.548	...	...	...	+0.12

MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO, —JULY, 1868.  
*Latitude—43° 30' 4" North. Longitude—81° 17' m. 33s. West. Elevation above Lake Ontario, 108 feet.*

Day	Barom. at temp. of 32°			Temp. of the Air.			Tension of Vapour.			Humidity of Air.			Direction of Wind.			Velocity of Wind.			Rain in inches.	Snow in inches.			
	6 A.M.	10 P.M.	Mean.	6 A.M.	10 P.M.	Mean.	0	2	10	6 A.M.	10 P.M.	Mean.	6 A.M.	2 P.M.	10 P.M.	6	10	2					
	inches	inches	inches	inches	inches	inches	A.M.	P.M.	P.M.	A.M.	P.M.	P.M.	A.M.	P.M.	P.M.	A.M.	P.M.	P.M.					
1	29.688	29.713	29.695	68.1	71.7	70.8	0.088	0.097	0.076	88	88	88	Calm.	s	Cal.	0.0	0.0	0.0	4.02	4.14	...	...	
2	765	718	724	72.0	71.3	71.6	+11.12	+11.62	+11.87	85	85	85	Cal.	s	Cal.	0.0	0.0	0.0	1.91	2.88	...	...	
3	783	784	787	73.1	81.1	77.0	+11.62	+9.92	+10.26	85	70	85	Cal.	s	Cal.	0.0	0.0	4.5	4.0	1.42	2.64	...	...
4	685	686	681	62.40	73.1	70.1	+17.10	+17.00	+17.00	68	68	68	Cal.	s	Cal.	0.0	0.0	10.0	6.4	3.85	8.64	...	...
5	710	718	714	71.0	85.0	78.0	+3.64	+4.67	+3.64	62	62	62	Cal.	s	Cal.	0.0	0.0	0.0	7.5	7.89	8.28	...	...
6	725	705	715	68.3	77.8	73.0	+0.27	+5.51	+5.80	80	61	74	Cal.	s	Cal.	0.0	0.0	9.2	0.0	4.22	4.37	...	...
7	740	740	740	67.7	83.6	75.6	+7.95	+9.13	+7.19	69	67	69	Cal.	s	Cal.	0.0	0.0	0.0	0.0	0.0	0.0	...	...
8	634	652	644	68.0	80.3	74.3	+8.62	+6.61	+6.74	80	65	72	Cal.	s	Cal.	0.0	0.0	2.6	2.2	1.25	1.41	...	...
9	647	645	646	68.6	80.0	74.3	+7.33	+6.18	+6.61	69	64	87	Cal.	s	Cal.	0.0	0.0	4.6	2.6	2.38	5.44	...	...
10	676	643	660	72.0	81.1	76.6	+8.07	+6.41	+6.81	82	69	88	Cal.	s	Cal.	0.0	0.0	0.0	1.4	4.84	5.23	...	...
11	683	664	674	72.0	80.0	76.0	+12.05	+9.88	+10.46	76	43	70	Cal.	s	Cal.	0.0	0.0	1.5	3.81	3.78	...	...	
12	679	654	667	72.0	86.0	81.0	+12.05	+9.88	+10.46	73	66	73	Cal.	s	Cal.	0.0	0.0	0.5	1.0	2.69	2.70	...	...
13	677	681	679	75.3	91.2	83.2	+17.57	+14.02	+14.29	73	66	73	Cal.	s	Cal.	0.0	0.0	0.5	1.0	2.69	2.70	...	...
14	676	617	647	75.3	91.2	83.2	+17.57	+14.02	+14.29	73	66	73	Cal.	s	Cal.	0.0	0.0	0.5	1.0	2.69	2.70	...	...
15	692	629	661	77.1	90.4	83.7	+18.08	+15.06	+15.57	78	66	78	Cal.	s	Cal.	0.0	0.0	4.7	3.2	2.28	2.63	...	...
16	615	619	617	78.5	88.3	83.4	+16.95	+15.06	+15.57	78	66	78	Cal.	s	Cal.	0.0	0.0	6.5	1.0	0.94	4.32	...	...
17	644	616	630	80.7	80.7	80.7	+7.08	+5.23	+5.71	73	54	73	Cal.	s	Cal.	0.0	0.0	0.0	14.5	6.48	8.65	...	...
18	692	629	661	80.7	80.4	80.5	+8.37	+6.40	+6.89	71	40	71	Cal.	s	Cal.	0.0	0.0	7.5	3.6	3.62	6.10	...	...
19	688	612	650	80.4	84.7	82.5	+14.88	+12.58	+13.73	72	61	72	Cal.	s	Cal.	0.0	0.0	10.0	1.2	2.87	3.00	...	...
20	695	681	688	84.7	84.7	84.7	+14.88	+12.58	+13.73	72	61	72	Cal.	s	Cal.	0.0	0.0	10.0	1.2	2.87	3.00	...	...
21	678	628	653	81.8	81.8	81.8	+9.42	+6.93	+7.68	75	61	75	Cal.	s	Cal.	0.0	0.0	6.0	4.6	0.57	6.37	...	...
22	693	642	667	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	2.8	3.26	3.03	...	...	
23	692	690	691	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	6.0	2.8	3.26	3.03	...	...
24	690	690	690	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	11.0	1.8	5.68	6.04	...	...
25	690	690	690	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	7.8	3.0	3.98	4.79	...	...
26	690	690	690	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	6.2	5.6	3.20	4.37	...	...
27	690	690	690	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	6.0	2.0	1.76	6.17	...	...
28	690	690	690	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	6.4	3.5	0.77	2.93	...	...
29	690	690	690	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	4.0	3.4	3.11	3.42	...	...
30	690	690	690	82.5	82.5	82.5	+9.95	+7.76	+8.85	85	69	85	Cal.	s	Cal.	0.0	0.0	0.0	3.2	2.66	2.67	...	...
31	650	437	544	70.0	80.7	75.3	+6.00	+4.46	+5.23	87	71	82	Cal.	s	Cal.	0.0	0.0	4.4	1.2	1.49	3.04	...	...
Mean	29.6270	29.6050	29.6160	69.65	82.0	75.80	+9.54	+6.74	+7.64	78	58	74	Cal.	s	Cal.	3.30	0.42	3.60	...	...	4.66	0.510	



REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR JULY, 1868.

**NOTE**—The monthly means do not include Sunday observations. The daily means, excepting those that relate to the wind, are derived from six observations daily, namely at 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and resultants for the wind are from hourly observations.

Highest Barometer ..... 29.782 at 8 a.m. on 2nd } Monthly range= 0.442 inches.  
 Lowest Barometer ..... 29.340 at 4 p.m. on 24th }  
 { Maximum Temperature ..... 83° on 13th } Monthly range= 31° 4'  
 { Minimum Temperature ..... 59° on 26th }  
 { Mean Maximum Temperature ..... 69° 40' } Mean daily range= 18° 24'  
 { Mean Minimum Temperature ..... 60° 16' }  
 { Greatest daily range ..... 29° from a.m. to p.m. of 1st.  
 { Least daily range ..... 12° 4' from a.m. to p.m. of 23rd.  
 Warmest Day ..... 14th... Mean Temperature ..... 84° 60' } Difference = 16° 08'  
 Coldest Day ..... 26th... Mean Temperature ..... 68° 42' }  
 Maximum { Solar ..... 114° on 15th } Monthly range= 66° 8'  
 Radiation, { Terrestrial ..... 47° on 26th }  
 Aurora observed on 4 nights, viz.:—10th, 11th, 13th and 14th.  
 Possible to see Anom on 18 nights; impossible on 13 nights.  
 Raining on 6 days; depth 0.610 inches; duration of fall 11.6 hours.  
 Mean of Cloudiness=0.59.  
 Most cloudy hour observed 6 a.m.; Mean, 0.67; least cloudy hour, midnight; Mean, 0.48.

Sums of the components of the Atmospheric Current, expressed in Miles.

North, East, West.  
 1248.83 1178.36 643.90

Resultant Direction S 87° E.; Resultant Velocity 0.72.  
 Mean Velocity 4.06 miles per hour.  
 Maximum Velocity 18.6 miles, from 6 to 7 a.m. of 5th.  
 Most Windy Day 31st; Mean Velocity 9.03 miles per hour.  
 Least Windy Day 21st; Mean Velocity 2.02 miles per hour.  
 Most Windy hour Noon; Mean Velocity 7.41 miles per hour.  
 Least Windy hour 7 p.m.; Mean Velocity 2.87 miles per hour.

2nd, thunder storm. 7th, thunder storm. 7th, lunar halo.  
 18th, thunder storm. 31st, thunder storm.  
 Dew recorded on 3 mornings, fog on 3 occasions.  
 July, 1868. The temperature of this month exceeds any previously experienced here, and seems to have been generally light as such. On four days, viz., 4th, 13th, 14th and 15th, the mean temperature of the day exceeds the warmest day previously recorded. The amount of rain is also the smallest recorded, being 2.9 less than the average.

COMPARATIVE TABLE FOR JULY.

YEAR.	TEMPERATURE.				RAIN.		SNOW.		WIND.		
	Mean.	Excess above average.	Maxi. num.	Mini. num.	Range.	No. of days.	Inches.	No. of days.	Inches.	Resultant.	Mean Velocity.
1840	65.8	0.3	82.3	47.0	35.3	6	5.270	...	...	...	0.27 lbs
1841	65.0	-2.1	80.9	49.1	30.9	10	8.160	...	...	...	0.83
1842	64.7	-2.4	91.0	42.5	48.6	4	3.050	...	...	...	0.41
1843	64.5	-2.6	86.8	38.7	48.1	8	4.605	...	...	...	0.19
1844	68.0	1.1	88.3	40.1	46.5	12	2.816	...	...	...	0.30
1845	68.2	0.9	89.0	43.7	49.8	7	2.106	...	...	...	0.23
1846	68.0	0.9	84.6	44.5	50.1	9	2.869	...	...	...	0.19
1847	68.0	0.9	87.0	43.2	43.8	8	3.355	...	...	...	0.19
1848	65.5	-1.6	92.2	44.1	38.1	10	1.899	...	...	...	0.18
1849	68.4	1.3	88.6	45.2	43.4	4	3.416	...	...	...	3.52
1850	68.9	1.8	86.2	51.6	34.6	12	5.270	...	...	...	4.86
1851	65.0	-2.1	82.7	46.5	30.2	12	3.625	...	...	...	4.13
1852	68.8	0.3	90.1	48.5	41.6	8	4.075	...	...	...	3.33
1853	68.0	-1.5	91.3	41.6	49.7	10	0.914	...	...	...	3.69
1854	72.5	+5.4	88.0	42.5	56.6	9	4.869	...	...	...	4.03
1855	67.9	+0.8	92.8	49.2	43.6	13	3.245	...	...	...	6.47
1856	69.9	+2.8	90.0	49.5	47.1	8	1.120	...	...	...	5.84
1857	67.8	+0.7	86.6	47.0	39.6	15	5.475	...	...	...	5.74
1858	67.9	+0.8	85.0	52.0	33.0	12	2.072	...	...	...	5.70
1859	69.0	+0.2	88.0	44.7	43.8	12	2.011	...	...	...	5.81
1860	68.9	-3.2	88.0	43.8	44.2	13	4.886	...	...	...	7.29
1861	68.4	-1.7	84.5	47.0	37.6	10	2.035	...	...	...	4.66
1862	66.7	-0.4	95.5	48.2	47.3	16	5.344	...	...	...	5.80
1863	67.9	+2.6	83.5	48.0	35.6	15	3.468	...	...	...	3.89
1864	69.7	+2.6	90.2	40.0	41.2	8	1.852	...	...	...	6.00
1865	65.0	-1.1	83.0	45.8	37.2	11	2.470	...	...	...	5.34
1866	70.4	+5.3	94.0	47.8	46.2	16	5.300	...	...	...	4.77
1867	68.2	+1.1	94.0	48.2	45.5	12	1.965	...	...	...	5.45
1868	76.8	+8.7	83.4	59.0	34.4	5	0.510	...	...	...	4.66
Mean for 1867.	67.08	...	89.04	46.78	43.29	10.57	3.463	...	...	...	4.87
Excess for '68	8.72	...	4.36	13.23	8.86	5.57	2.943	...	...	...	0.81

MONTHLY METEOROLOGICAL REGISTER, AT THE MAGNETICAL OBSERVATORY, TORONTO, ONTARIO, —AUGUST, 1868. Latitude—43° 30' 4" North. Longitude—5h. 17m. 38s. West. Elevation above Lake Ontario, 108 feet.

Table with columns: Day, Barom. at temp. of 32°, Temp. of the Air, Excess of Mean above Normal, Tension of Vapour, Humidity of Air, Direction of Wind, Resultant, Velocity of Wind, Rain, Snow. Rows 1-31 and M (Monthly) with various meteorological data points.

REMARKS ON TORONTO METEOROLOGICAL REGISTER FOR AUGUST, 1868. COMPARATIVE TABLE FOR AUGUST.

Note.—The monthly means do not include Sunday observations. The daily means, excepting those that relate to the wind, are derived from six observations daily, namely at 6 A.M., 8 A.M., 2 P.M., 4 P.M., 10 P.M., and midnight. The means and resultants for the wind are from hourly observations.

Highest Barometer.....23.915 at 8 a.m. on 27th. } Monthly range= }  
 Lowest Barometer.....20.220 at 4 p.m. on 8th. } 0.695 inches.  
 { Maximum Temperature .....84° on 14th. } Monthly range= }  
 { Minimum Temperature .....49° on 13th. } 37°0. }  
 { Mean Maximum Temperature .....46° on 13th. } 37°0. }  
 { Mean Minimum Temperature .....75° on 13th. } 75°0. }  
 { Mean Daily Range .....68° on 13th. } 68°0. }  
 { Greatest daily range .....68° on 13th. } 68°0. }  
 { Least daily range .....38° on 13th. } 38°0. }  
 Warmest day .....29th. Mean Temperature.....72° on 13th. } Difference=13° on 13th.  
 Coldest day .....17th. Mean Temperature.....59° on 7th. } Difference=13° on 7th.  
 Maximum Solar .....99° on 14th. } Monthly range= }  
 Radiation. { Terrestrial .....31° on 13th. } 64°0. }  
 Aurora observed on 2 nights, viz.: 9th and 11th.  
 Possible to see Aurora on 20 nights; impossible on 11 nights.  
 Raining on 13 days; depth 1.562 inches; duration of fall 20.4 hours.  
 Mean of Cloudiness=0.55.  
 Most cloudy hour observed 4 p.m.; Mean=0.65; least cloudy hour observed 10 p.m.; Mean=0.39.  
 Sums of the components of the Atmospheric Current, expressed in Miles.  
 North. East. West.  
 1262.68 1653.21 1678.94  
 Resultant Direction S. 58° W.; Resultant Velocity 1.01.  
 Mean Velocity 6.15 miles per hour.  
 Maximum Velocity 22.1 miles, from 4 to 5 p.m. of 15th.  
 Most Windy day 8th; Mean Velocity 10.47 miles per hour. } Difference 8.41 miles.  
 Least Windy day 24th; Mean Velocity 2.06 miles per hour. }  
 Most Windy hour 2 p.m.; Mean Velocity 10.23 miles per hour. } Difference 6.82 miles.  
 Least Windy hour 5 a.m.; Mean Velocity 3.41 miles per hour. }  
 8th, thunder storm, a.m. 15th, thunder storm, p.m.  
 20th, thunder storm, noon. 31st, thunder storm, p.m.  
 28th, rainbow at 9 p.m. Solar haloes on the 21st and 24th.

YEAR.	TEMPERATURE.				RAIN.		SNOW.		WIND.		
	Mean.	Excess above average.	Max. num.	Min. num.	Range.	No. of days.	Inches.	No. of days.	Inches.	Resultant.	Mean Velocity.
1840	63.7	7.4	82.4	47.7	34.7	12	2.905	...	...	0	0.10 lbs
1841	64.4	1.7	84.8	45.7	39.1	9	6.170	...	...	...	0.30
1842	66.4	0.4	83.1	44.0	39.1	4	4.850	...	...	...	0.12
1843	66.4	0.3	81.8	43.5	48.3	17	Imper.	...	...	...	0.19
1844	67.3	1.8	86.8	43.6	43.3	9	1.725	...	...	...	0.19
1845	64.9	2.3	86.4	40.5	36.0	9	1.770	...	...	...	0.17
1846	65.1	1.0	82.6	44.6	38.0	10	2.140	...	...	...	0.19
1847	68.2	3.1	87.0	48.7	38.3	8	0.855	...	...	...	0.98
1848	66.3	0.2	70.0	49.0	30.0	10	4.970	...	...	...	0.60
1849	68.8	0.7	85.0	41.0	44.0	13	4.365	...	...	...	0.35
1850	68.0	2.6	79.8	42.0	37.8	10	1.360	...	...	...	0.40
1851	65.9	0.2	81.2	45.8	35.4	9	2.695	...	...	...	0.56
1852	68.0	2.5	94.9	42.5	52.4	11	2.575	...	...	...	0.36
1853	68.0	1.9	90.2	45.6	53.6	5	0.455	...	...	...	1.76
1854	64.1	2.0	83.5	40.0	43.5	7	1.455	...	...	...	1.04
1855	63.0	2.6	82.7	41.5	41.2	12	1.680	...	...	...	2.88
1856	67.3	0.8	88.2	46.0	42.2	13	5.265	...	...	...	1.51
1857	65.0	1.5	84.0	44.0	40.4	11	3.800	...	...	...	1.57
1858	66.9	0.5	87.2	45.8	36.4	11	3.900	...	...	...	1.83
1859	64.9	1.6	87.0	46.0	40.2	14	3.405	...	...	...	1.62
1860	64.9	1.6	87.0	46.0	40.2	14	3.405	...	...	...	1.83
1861	65.6	0.6	86.2	47.0	38.2	16	2.953	...	...	...	0.46
1862	67.0	1.5	89.5	42.8	46.7	15	3.488	...	...	...	1.67
1863	66.6	0.5	88.0	42.4	45.6	12	2.208	...	...	...	1.80
1864	68.0	2.5	94.0	47.0	47.0	10	5.060	...	...	...	1.88
1865	65.2	0.9	87.8	44.4	43.4	8	1.900	...	...	...	1.55
1866	60.8	5.3	77.0	42.4	34.6	14	4.457	...	...	...	2.69
1867	68.1	2.0	95.2	42.2	53.0	10	2.440	...	...	...	1.25
1868	67.2	1.1	84.4	45.8	37.6	13	1.562	...	...	...	1.01
Result for 1867.	66.05	...	85.82	44.64	41.28	10.71	3.022	...	...	N 66 W	1.06
Result for 1868.	1.15	...	1.42	2.20	3.68	2.29	1.460	...	...	...	+

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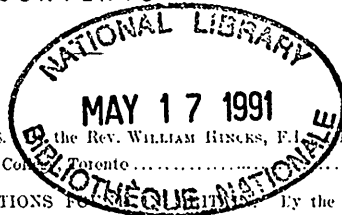
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